RINS868-6

Pyronix®

PCX-256
Programming

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CHAPTER 2: SYSTEM OVERVIEW

2.1 PCX 256 Input Information

The PCX 256 consists of the following components:

➢ MSX Card

➢ PCX 8 Input Expander

➢ PCX LCD Keypad / Reader

Location/Address	Inputs	Location/Address	Inputs
Control Panel	1 – 8	RIX 18	153 – 160
RIX 0	9 – 16	RIX 19	161 – 168
RIX 1	17 – 24	RIX 20	169 – 176
RIX 2	25 – 32	RIX 21	177 – 184
RIX 3	33 – 40	RIX 22	185 – 192
RIX 4	41 – 48	RIX 23	193 – 200
RIX 5	49 – 56	RIX 24	201 – 208
RIX 6	57 – 64	RIX 25	209 – 216
RIX 7	65 – 72	RIX 26	217 – 224
RIX 8	73 – 80	RIX 27	225 – 232
RIX 9	81 – 88	RIX 28	233 – 240
RIX 10	89 – 96	Keypad/Reader 00	241 – 242
RIX 11	97 – 104	Keypad/Reader 01	243 – 244
RIX 12	105 – 112	Keypad/Reader 02	245 – 246
RIX 13	113 – 120	Keypad/Reader 03	247 – 248
RIX 14	121 – 128	Keypad/Reader 04	249 – 250
RIX 15	129 – 136	Keypad/Reader 05	250 – 252
RIX 16	137 – 144	Keypad/Reader 06	253 – 254
RIX 17	145 – 152	Keypad/Reader 07	255 – 256

2.2 Default Codes

User: 1234
Master Manager: 5678 (🄳 Key, then 5678)
Engineer: 9999 (enter 9999, press the ⌧ key twice and enter 9999)

CHAPTER 3: THE ENGINEERS MENU

In order to program system configurations from the keypad, you must be in the Engineer Menu. The panel will enter the Engineering Menu after entering a valid engineer code when the panel is in a disarmed state. Whilst in Engineer Mode all tamper alarms (including case tamper), will be disabled.

3.1 Entering The Engineers Menu

NOTE: You will not be able to access Engineers Mode if Areas or Set levels are set. The system must be <u>fully unset</u> in order to gain access to the Engineer Menu. Access maybe also denied if the user has disabled the "Allow Engineer Menu" in the Master Manager Mode 'Authorisation Required' will be shown.

➢ Enter the Engineer Code (default 9999). ➢ Any active faults will be shown. Press the ⌧ key. ➢ "**ARM / DISARM SYSTEM**?" will be Displayed. Press the ⌧ key	
➢ "**FORCE ARM ON 1ˢᵗ INPUT[01]**" will be displayed ➢ Press the ⌧ key ➢ **ENTER CODE**" will be displayed ➢ Enter the Engineers code (default 9999) ➢ "**INHIBIT FIRE/HU?**" will be displayed indicating that Engineers Mode has been entered.	
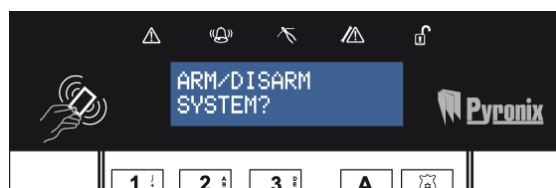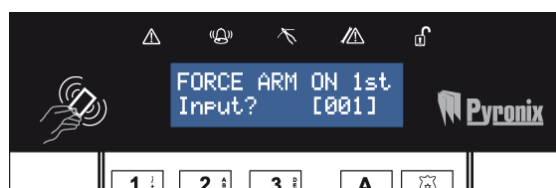
Once you are in the Engineer Menu, a high pitch tone will be generated regularly to remind you that you are still in the Engineer Menu.

3.2 Exiting The Engineer Menu

On completion of programming, the system can be returned back to normal mode by:

METHOD ONE	
➢ Use the B and ✓ keys to scroll to "**EXIT ENGINEERS MODE**" ➢ Press the ✓ key ➢ You will be returned to day mode	
METHOD TWO	
➢ When the display shows any main menu item (i.e. an item shown in capitals) press the A key, you will be returned to day mode.	
Please see page: 65, for all fault codes that may appear when exiting the Engineers menu.	
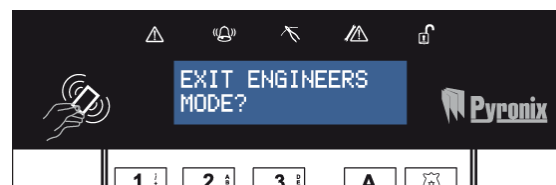
CHAPTER 4: POWERING UP & KEYPAD OPERATIONS

Before using the system, all items connected to the RS-485 communications bus must be allocated a unique address.

4.1 Default Codes

User: 1234.	**Master Manager:** 2222	**Engineers**: 1111

4.2 Initial Power Up

Power up the PCX system on **mains only**, an alarm will be generated. Proceed to the nearest keypad, which will display (from power up):
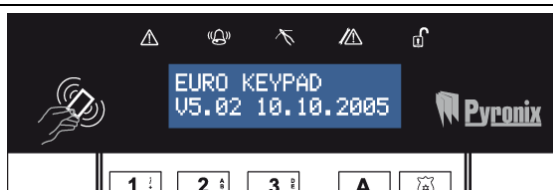
➢ The following will be displayed:	EURO KEYPAD V5.02 10.10.2005
After 10 seconds, the display will blank, and then show 'Address'. Enter 00 and then press the ✓ key (Press the ✓ key for further options just as tag volume, keypad brightness etc).	ADDRESS [--]
Press the **A** key to exit the addressing function, and enter 1234 (default master code) to silence an alarms that occur.	LANGUAGE English [00]
When the display shows: 'Battery Fault' and **NOT** before, connect the battery to the panel.	Active Faults Battery Fault100
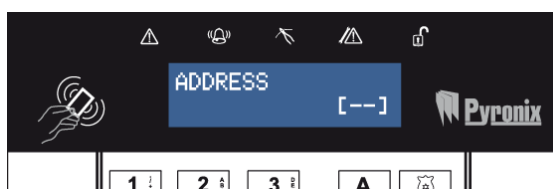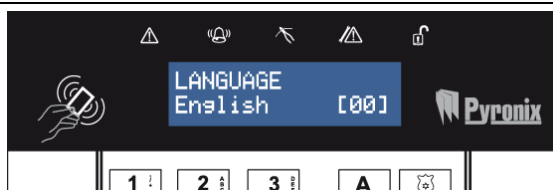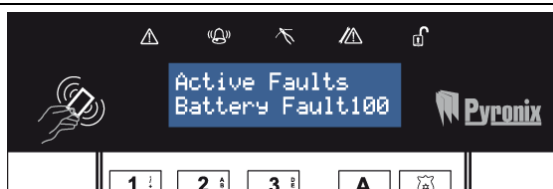
In the keypad function there are also other individual options such as: language, the status of the keypad inputs, key-click volume, tag volume, master volume and the tag ID.

The tag ID is used to show the identification code for each proximity tag.

To enter this keypad function at any time, please follow the instructions below.

4.3 Notes on Addressing Keypads

To address further keypads on the EURO system, press and hold the D🕮 key until "**KEYPAD CODE**" is displayed. Then enter '2000' as the code. This will take you to the screens above. Once this has been done you will need to assign the keypad in engineers mode, see 'Assign Keypads/Readers' on page: 24. Note: To address the readers you must select the relevant switches on the circuit board, see the installation manual for more information.

Any keypad that is not properly assigned will have a blank display until they are addressed.

4.4 Testing The Keypad

With the system disarmed, press the ⏹B key for 10 seconds at any keypad. This will cause all the LEDs on that keypad to illuminate, and the LCD screen to scroll a display testing each pixel. The keypad will revert to normal display approximately 10 seconds after the key is released.

4.5 Text Programming

Text may be programmed for input names, for the 'sign-on' message, and to identify the arm level being armed / disarmed. Each keypad key is allocated characters as shown below:
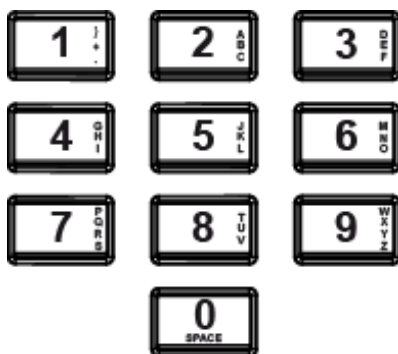
To type a word, press the the relevant key the appropriate number of times – e.g. for the letter 'k' press the ⏹5 key twice, or for the letter 's' press the ⏹7 key four times.

In addition, the ⏹A ⏹B ⏹C ⏹D keys are used as follows:

⏹A = make the character into a capital

⏹B = move cursor left

⏹C = clears cursor / adds a space

⏹D = moves cursor right

4.6 Accessing the Engineers Menu on Any Keypad

On the PCX 256, it is possible to access the Engineer menu on any keypad. For example, if you are in the Engineer menu in keypad address 00, the other keypads will display '*System Busy*', to access the Engineer menu on any other keypad, press the ⏹B key.

4.7 Arm / Disarm System

If you do not have access to a user code, arming and disarming the system can be done using the engineer's code.

Visual Keypad Programming Procedure **ARM / DISARM SYSTEM**	
➢ Enter the Engineer Code (default 9999). ➢ "**ARM / DISARM SYSTEM**?" will be displayed ➢ Press the ✓ key	ARM/DISARM SYSTEM?
Select the partition(s) / level arm you would like to arm. Press the ✓ key. The system then will begin to arm. To disarm the partitions, enter the engineer code, and wait a couple of seconds. '**ARM/DISARM SYSTEM'** will be displayed, press the ✓ . To disarm the partitions, press the ✗ key.	Arm? [0123456789ABCD]
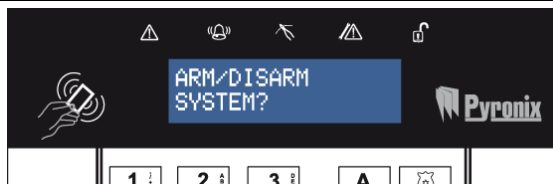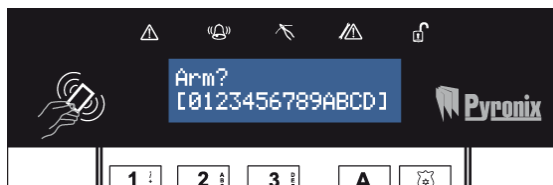
4.8 Forced Arm On Inputs

The 'Forced Arm On Inputs' allows the Engineer to arm / disarm the system using the Engineer Code, forcing it to arm despite inputs in fault condition, and nominate which inputs must be triggered to generate an alarm condition. This is a useful feature if you need to test a system in a building where people are walking around.

NOTE 1: The system will give the correct DigiCom response to the arming, and any resulting alarm. On disarming the system (With the Engineer code or the User code), the system will revert to normal mode.

NOTE 2: If the system has been armed by any other code, the Engineer code will not disarm it.

Visual Keypad Programming Procedure
FORCED ARM ON INPUT

> Enter the Engineer Code (default 9999).

> Any active faults will be displayed, press the ⊠ key.

> Press the ⊠ key again.

> '**FORCED ARM ON INPUT**' will be displayed

> Select the first input to be forced armed and press the ☑ key.

> Select the second input to be forced armed and press the ☑ key.
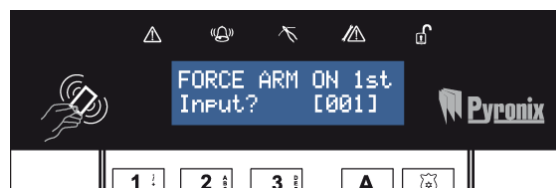
FORCE ARM ON 1st
Input?   [001]

Select the partition(s) / level arm you would like to arm. Press the ⊠ key. The system then will begin to arm.

When the input is triggered (or open and closed again) the alarm will be activated.

Please note the primary partitions are A,B,C and D.

Arm?
[0123456789ABCD]
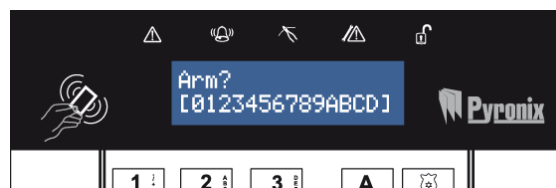
CHAPTER 5: THE ENGINEER FUNCTIONS

Please note that any programming done in the Engineers Menu will not be seen by the system until you have exited and the system has saved its data (please see Page: 8).

5.1 NVM Reset

It is essential that the Non-Volatile Memory (NVM) be reset at initial power up of a new system, to ensure that the initialisation is correct to factory defaults.

The NVM reset will clear all information apart from the user codes and the logs. After the system has completed an NVM reset, it will prompt with '**Clear Codes?**' If 'Yes' is selected then all user codes will be cleared. Once this has completed, the system will then prompt '**Initialise Logs**'. If 'Yes' is selected, all the logs will be cleared. The process below describes how to do this.

If the NVM chip is removed from the panel, it MUST be replaced before starting programming.

The system memory will now be restored to factory defaults EXCEPT:

➢ Keypad 00 remains enabled at all times & the keypad in use remains enabled

➢ Current keypad partitions are not changed

NOTE: If a new NVM chip is to be used, logs should be cleared.

It is possible to perform two different NVM resets. A grade 2 default NVM reset can be done by entering '2002'. Or a grade 3 default NVM reset can be done entering '2000'.

Visual Keypad Programming Procedure NVM RESET	
Using the B and X keys, scroll to '**NVM RESET?**' Press the ✓ key.	
The following will be displayed: Enter 2 0 0 0 "**Please Wait**" will be displayed, and then 'NVM reset complete'. *Enter 2002 for a Grade 2 NVM reset.*	
Press the ✓ key. **"Clear Codes"** will be displayed". If you would like to clear all the codes then press the ✓ key now. "Codes have been cleared" will be displayed. Otherwise press the X key."**Initialise Logs**" will be displayed. If you would like to clear the logs then press the ✓ key now. "Logs have been initialised" will be displayed. Otherwise press the X key. You will be returned to the Engineer Menu.	
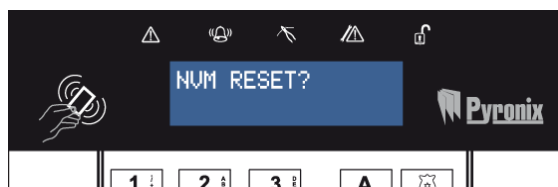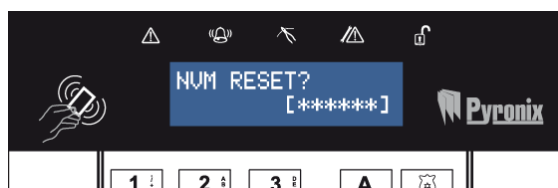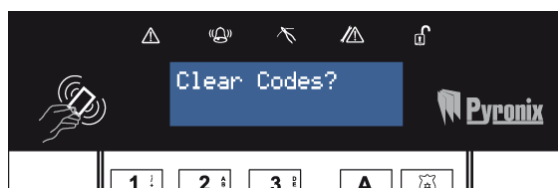
5.2 Inhibit Fire/HU

This function allows you to select if you would like the PCX system to respond to or inhibit **Fire** and **Hold Up** Alarms during the Engineers Menu.

<table>
<tr><td colspan="2">Visual Keypad Programming Procedure
INHIBIT FIRE/HU?</td></tr>
<tr><td>Using the B and X keys, scroll to 'INHIBIT FIRE/HU?'.

Press the ✓ key</td><td>INHIBIT FIRE/HU?</td></tr>
<tr><td>The following will be displayed:

Enter 0 : for No <i>(Default)</i>

Enter 1 : for Yes

Press the ✓ key
You will be returned to the Engineer Menu.</td><td>Inhibit Fire/HU?
No   [0]</td></tr>
</table>
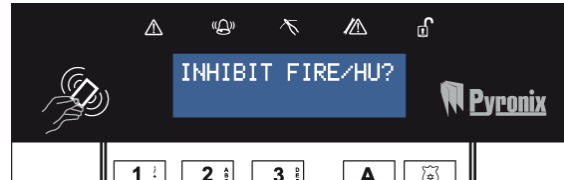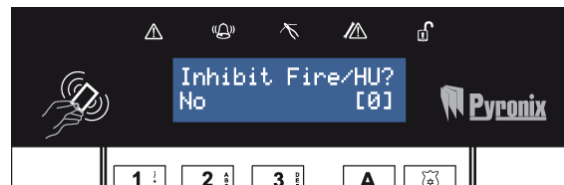
5.3 Software Revision

This option identifies the software version number, software serial number and product.

<table>
<tr><td colspan="2">Visual Keypad Programming Procedure
SOFTWARE REVISION?</td></tr>
<tr><td>Using the B and X keys, scroll to

'SOFTWARE REVISION?'

Press the ✓ key.
The version number will be displayed.

Press the ✓ key.
You will be returned to the Engineer Menu.</td><td>SOFTWARE
REVISION?</td></tr>
</table>
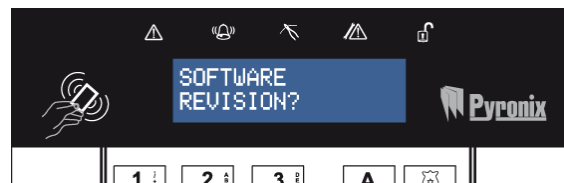
5.4 Choose Mode

5.4.1 The End of Line Range

This programs the panel to operate with different resistor values:

1K = *Alarm: 1K, Tamper: 1K.* **2K2** = *Alarm: 4K7, Tamper: 2K2.* **4K7** = *Alarm: 4K7, Tamper: 4K7*

5.4.2 SEOL or DEOL

This programs whether the whole alarm panel and any Remote Input Expanders will be used in Singe End of Line (SEOL) or Double End of Line (DEOL) resistor mode.

5.4.3 Input Response Time

This selects the time that a input trigger must be present before the whole system responds by generating an alarm, and is programmable from 100ms (0.1 seconds) to 3000ms (3 seconds). *Note: Settings above 400mS do not comply with PD6662/EN50131. If used in a BS4737 installation, setting should be between 300 and 800mS.*

5.4.4 Input XDF

DO NOT CHANGE THIS SETTING UNLESS INSTRUCTED TO BY CUSTOMER SUPPORT.

<table>
<tr><td colspan="2">Visual Keypad Programming Procedure
CHOOSE MODE</td></tr>
<tr><td>Choose Mode

Using the [B] and [X] keys, scroll to 'CHOOSE MODE?'. Press the [✓] key</td><td>CHOOSE MODE?</td></tr>
<tr><td>The End of Line Range

Enter [0]: 1K. Enter [1]: 2K2

Enter [2]: 4K7. (Default)

Press the [✓] key</td><td>EOL Range
4K7 Range   [2]</td></tr>
<tr><td>The End of Line Mode

Enter [0]: for SEOL

Enter [1]: for DEOL (Default)

Press the [✓] key</td><td>EOL Mode
DEOL   [1]</td></tr>
<tr><td>The Input Response

Select the required input response – using [0][1] (100ms) all the way to [3][0] (3000ms).

Default (400ms). Press [✓]. 'Input XDF will be displayed, do not alter this and press [✓]</td><td>Input Response
400ms   [04]</td></tr>
</table>
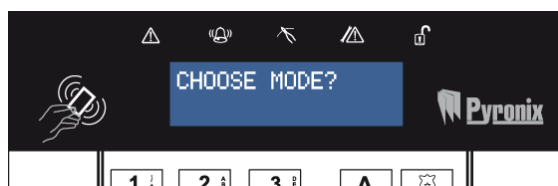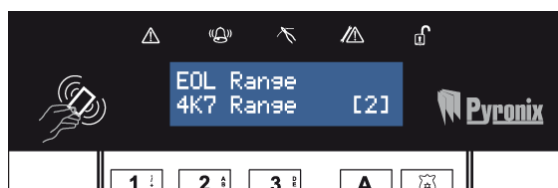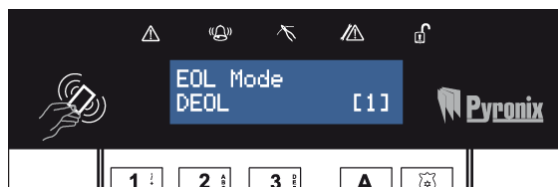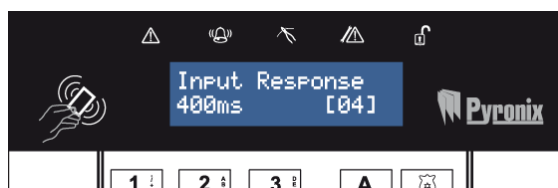
5.5 Install RIX

Any Remote Input Expanders installed on the PCX system must be enabled by the 'Install RIX' function. Please see the table on page 7 on how many RIX's can be installed on the system.

Visual Keypad Programming Procedure INSTALL RIX
Install RIX Using the B B and X keys, scroll to '**INSTALL RIX?.** Press the ✓ key ***RIX Address*** Please select the address for the RIX you are installing and press the ✓ key	
RIX Installed? Enable/Disable the RIX that you have installed. Enter 0 : for **No** *(Default)* Enter 1 : for **Yes.** Press the ✓ key Repeat for additional RIX's or press the X key. You will be returned to the Engineer Menu. For information on how to use predictive text, please see page: 10 for more information. Enter the location (for engineer reference only) and press ✓	
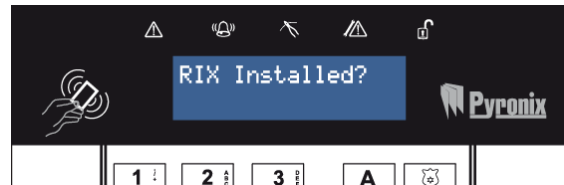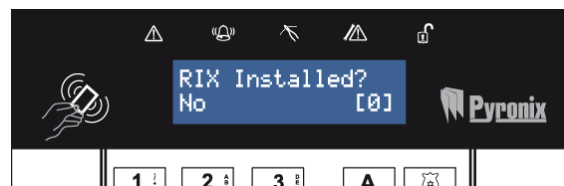
5.6 Change Inputs

By default, all inputs are pre-set as '**unused**' so you will need to program each individual input you require. The input will not be 'live' (and hence cannot be walk tested) until you have exited the Engineer Menu (please see Page: 8). Before programming, identify the location of each input from the following tables on page 7.

5.6.1 Input Types

Number & Type		Operation
00	Unused	*Factory default*. Input is programmed out of operation.
01	Fire	**Active at all times.** Audible Response: Full (differentiated). Communicator: 'Fire' signal
02	Gas	**Active at all times.** Audible Response: Full (differentiated) Communicator: 'Gas' signal
03	HU	**Active at all times.** Audible Response: Full (differentiated) Communicator: 'Hold Up' and 'Input HU' signals
04	Silent HU	**Active at all times.** Audible Response: None Communicator: 'Hold Up' and 'Input HU' signals
05	Tamper	**When disarmed:** Audible Response: Internal only

Number & Type		Operation
		Communicator: 'Tamper' signal
		When armed: Audible Response: Full (differentiated)
		Communicator: 'Tamper' and 'Unconfirmed' signals
06	**Immediate**	**Active when armed.** Audible Response: Full
		Communicator: 'Intruder' and 'Unconfirmed' signal
07	**Entry/Exit (EE)**	**Active when armed** – initiates entry timer if system not disarmed before entry time expires: Audible Response: Full. Communicator: 'Intruder' signal
08	**Access (A)**	**Active when armed**, except during entry time. (Acts as an immediate input if an entry/exit input hasn't been activated beforehand) Audible Response: Full. Communicator: 'Intruder' and 'Unconfirmed' signal
09	**A (Part EE)**	(For use with part arms). When fully armed, it acts as an Access input as above, when part armed; it acts as an Entry/Exit input.
10	**EE (Part A)**	(For use with part arms). When fully armed, it acts as an Entry/Exit input as above, when part armed; it acts as an Access input.
11	**PTS (Push to set)**	**Active during exit time** to complete arming procedure No audible or communicator response. *Note: May be used to act as 'doorbell' by use of 'chime' attribute.*
12	**Switcher**	**Active at all times.** No audible or communicator response Triggers associated output or switches other equipment
13	**24 Hour**	**When armed:** Audible Response: Full. Communicator: 'Intruder' and 'Unconfirmed' signals **When disarmed:** Audible Response: Programmable. Communicator: 'Day Alarm' signal
15	**Sub Part Control**	Input is allocated by system software and cannot be reprogrammed to a different type, though relevant attributes may be adjusted.
16	**Fault**	**Active when armed or disarmed.** Audible Response: Graduated internal Triggers 'Global Fault 1' output if the system is armed. Triggers 'Global Fault 2' output if the system is armed or disarmed.
17	**Closure Supervision**	**Active during arming procedure.** No audible or communicator response Prevents system being armed whilst active
18	**Shunt Input**	**Active at all times.** No audible or communicator response Accepts input from keyswitch (or equivalent) to shunt the inputs assigned to it. Associated outputs are available. *After 10 seconds the detectors in the shunt list will be active. See page: 21*
19	**Disarm Input**	**Active when armed.** Accepts input from keyswitch (or equivalent) to disarm the arm level assigned to it.
20	**Keyswitch Latched**	Accepts input from keyswitch (or equivalent) to arm/disarm the arm modes assigned to it. Arming includes normal exit time, etc. Requires latching switch action.
21	**Entry Shock Input**	**Active when system armed.** Works in conjunction with EE input type for detection of forced entry. See page 18 for details.
22	**Input Fail Fail**	**Active when fail.** Will give a line fault alarm, and will signal telecom line fault on expiry of line fault timer. Works in conjunction with CCTV input
23	**Keyswitch Pulsed**	Accepts input from keyswitch to arm/disarm the arm modes assigned to it. Requires momentary action switch to toggle arm/disarm state.

NOTES: 'Part Arm' refers to any combination other than all available partitions

A trigger from an Access input will be stored for 2 seconds before an alarm is activated. If an Entry/Exit input is triggered within this time, the system will select entry time, rather than immediate alarm.

5.6.2 Entry Shock Input Type (21)

This input type is designed specifically for use with systems installed using DD243 option 6.4.5,

This input type is always used in conjunction with an Entry/Exit input. The EE input is a door contact on the initial entry door, and the Entry Shock input is a *non-latching* shock sensor fitted to the door frame in the vicinity of the lock.

If the initial entry door is subjected to gross attack and forced open, then at the expiry of entry time only one further intruder input need to be activated to signal a sequentially confirmed alarm – the Entry Shock input counts as the first to alarm.

The Entry/Exit door contact must be opened with 10 seconds of the shock detector triggering for the Entry Shock response to apply. Triggering the Entry Shock input in isolation will NOT generate an alarm of any kind.

5.6.3 Creating a common partition

In certain situations, a 'common' partition may be needed.
A common partition is a partition that only arms if other specific partitions are armed. For example, a reception in a building will only need to be armed if the offices and warehouse are armed. If the office is armed, but the warehouse isn't, then the reception would still need to be inactive so people would be able to leave the premises. An example of how to set this up is as follows:

Office: Inputs 1, 2, 3 and 4. **Warehouse:** Inputs 5, 6 and 7. **Reception:** Input 8.

Therefore what we would need to do in the above situation is program the office in one partition (for example Partition A) and program the warehouse in another partition (for example in Partition B). We then need to make the Reception 'common' to these two areas (Partitions A and B), so we need to select both partitions A and B for this input (input 8)

After selecting the partitions for each input there is an option called "Input Partition: Any/All". For inputs 1,2,3,4,5,6 and 7 we need to make this attribute 'any', as they work independently to the partition they are assigned to. For input 8 (The common partition), we need to make this attribute as 'all', therefore when partitions A and B are both armed, the reception (input 8) will automatically arm as well. In this example, you would also have to select the user codes to both partitions A and B (the keypads/readers can be in separate partitions though).

5.6.4 Input Attributes

Attribute	Response Modification
Chime	System loudspeaker(s) will 'chime' when a input triggered whilst the alarm panel is disarmed. Note: The input concerned will not indicate on the display.
Single	System chimes once when the input is triggered.
Follow	System chimes until the input is cleared.
Applicable to Immediate, Entry/Exit and Access input types	
Omittable	Enables the input to be manually omitted during the arming procedure.
Double Knock	The control will only generate an alarm if this input is triggered twice within a pre-set period, or if the input remains in fault condition for that period.
Dual Trip	The control will only generate an alarm if this input, and another like-programmed input with adjacent number, are in fault condition at the same time. Either input in fault condition will prevent the system from arming.
Normally Open	Enables the system to respond correctly when detectors of 'normally open' configuration are wired to the system. Alternatively converts input types which default to 'normally open' (e.g. PTS) to operate with normally closed devices.

Monitor Activity	Enables an input to generate an alarm if the input does not see any activity for a period specified by the NAT (Non Activity Time) timer.
Special Logged	Forces a log entry when the input is opened or closed, even when an alarm does not result. May be selected to apply when a system is armed, when disarmed, or always.
Paired Input	*DO NOT USE THIS OPTION*
Confirm Group	If one or more inputs are selected within the same confirm group, all confirmed signals will be disabled. If confirm group is selected as '00' the inputs are not part of any group. If inputs are allocated to group 99 they will generate an alarm that results in an intruder (unconfirmed) signal to an ARC. They will not under any circumstances generate a confirmed signal, regardless of which group the input that triggered the 'unconfirmed' alarm is allocated to.

Any input may be programmed with any combination of these attributes, except where stated.

5.6.5 Masking Response

When disarmed, a masking event will generate an audible 'alert' that requires response in the normal way. There will be NO signal transmitted to the ARC. When armed, a masking event will generate a normal 'intrusion' response including 'intruder' or 'unconfirmed' output, but will NOT result in a confirmed alarm if paired with a normal activation of the same detector. This harmonises with the requirement of EN50131-1 cause 8.4.5 and the insurer's preference expressed in BSIA Form 171.

5.6.6 Automatic Inhibit of Inputs

Inputs may be automatically inhibited (omitted) at the time of reinstatement at the end of confirmation time. The number of times that this takes place is controlled by the 'Re-Arm Number' in Change timers.

Visual Keypad Programming Procedure
CHANGE INPUTS
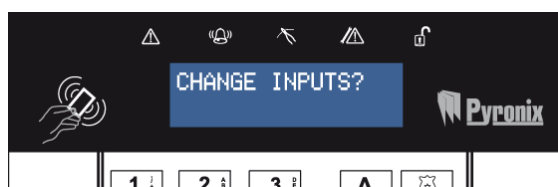
Change Inputs Using the [B] and [X] keys, scroll to **'CHANGE INPUTS?'** Press the [✓] key	
Input Select the input number you wish to program and press the [✓] key.	
Input Type *(Default unused)* Select the input type (See the 'input types' table – Page: 16) by using either the numeric code or the [B] and [D].	
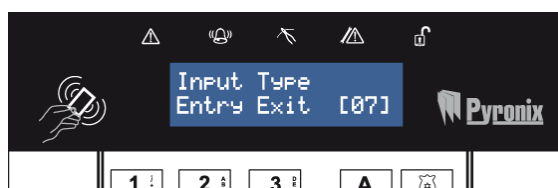
Input Partition

Enter the partitions/level arms you would like the input to operate in (At default the system is a level arm system, to change this please refer to Site Options "Use Level Arm", see page: 47).

NOTE: The primary partitions are A, B, C and D

The default partition selected is A.

Press the ✓ key.
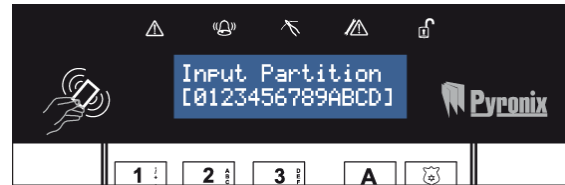
For partition arming systems only:

(Please see common partitioning, page: 18)

Enter [0]: for **Any** *(Default)*

Enter [1]: for **All**

Press the ✓ key
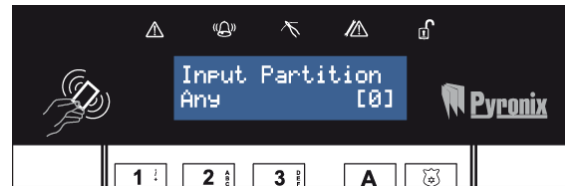
Input Attributes

Press the ✓ key to select any attributes for the input (for details on each attribute see page: 18)

Chime

Enter [0]: for **No** *(Default)*

Enter [1]: for **Single**

Enter [2]: for **Follow.** Press the ✓ key

Omittable

Enter [0]: for **No** *(Default)*

Enter [1]: for **Yes**
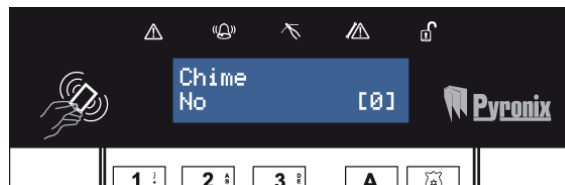
Press the ✓ key. Repeat for Double Knock, Dual Trip, Normally Open, Monitor Activity *(all defaulted to No)* Until:
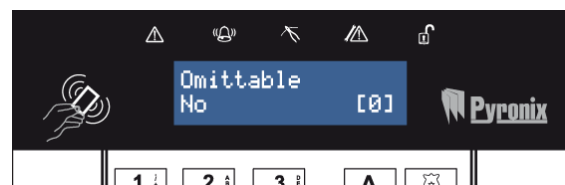
Special Log

Enter [0]: for **No** *(Default)*

Enter [1] for **Arm**   Enter [2]: for **Disarm**

Enter [3]: for **Always,** Press the ✓ key

Paired Input: Do not change. Press ✓
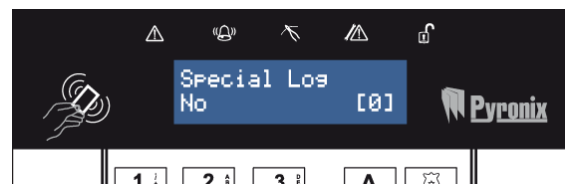
Confirm Group

Enter the Confirm Group if used.

Press the ✓ key
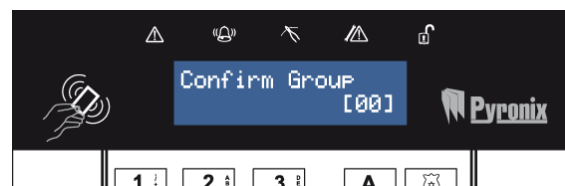
Input Name

If you would like to enter a name for the input, select the ✓ key. Text programming is described on page: 10. Select the ✓ key. Repeat all the above for further inputs, or press the ✗ key to return to the Engineers Menu.
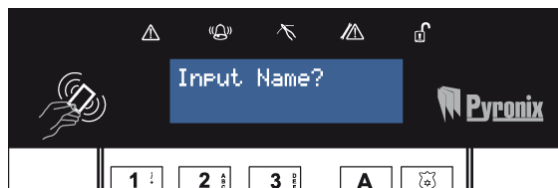
NOTE: After programming the inputs, it is necessary to exit the Engineer Menu for the programming to take effect, before the inputs are walk tested, etc.

5.6.7 Shunt Inputs

A shunt group may consist of any number of inputs programmed as Immediate, Tamper, 24hr and Access types. These must all be allocated in the same partition. *NOTE: These will need to be programmed first.*

A maximum of 128 on the PCX 256 (i.e. half the number of inputs on the system).

The inputs in the shunt group/list will only activate after 10 seconds of the nominated shunt input. For example, if input 1 is programmed as 'Shunt Input', and inputs 2 and 3 are programmed as "24hr", then once input 1 has been opened, after 10 seconds inputs 2 and 3 become active.

Action	Status	Outputs
Shunt Input closed (shunted)	Inputs within the shunt list are inactive	The 'Follow Input' PGM output live
Shunted Input triggered	No response	
Shunt Input opened (unshunted)	-	The 'Follow Input' PGM output clears. The 'Shunt Fault' PGM output is live for 10 seconds.
After 10 seconds	Inputs in the shunt list are active	Indications off.
Shunt Input opened with an active detector (attempting to unshunt)	-	The 'Follow Input' PGM output clears. The 'Shunt Fault' PGM output pulses until the shunt is reset or the input fault clears.
Active input clears	-	The 'Shunt Fault' PGM output is live for 10 seconds.
After 10 seconds	Inputs in the shunt list are active	Indications off.
Shunted input triggered (whilst not triggered)	Normal input response	(Note: depends upon the status of the partition in which the shunt is located).

Visual Keypad Programming Procedure	
CHANGE INPUTS	
Shunt Inputs	

Change Inputs

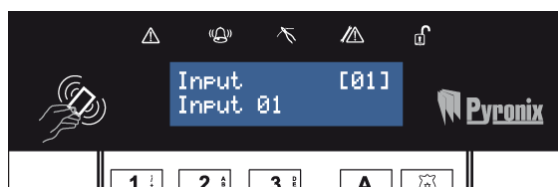Using the ⬜B and ⬜✗ keys, scroll to **'CHANGE INPUTS?**'
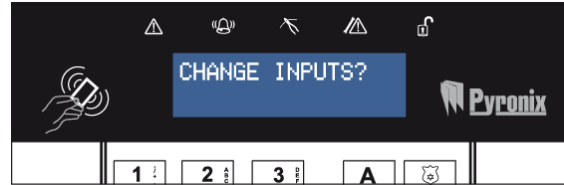
Press the ⬜✓ key

Input

Select the input number you wish to program as the shunt input. Press the ⬜✓ key.
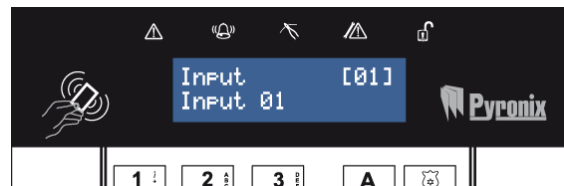
Input Type

Select the shunt input type (type 18)

Shunt Inputs

If you would like to select the shunt inputs for the selected input press the ⬜✓ key.
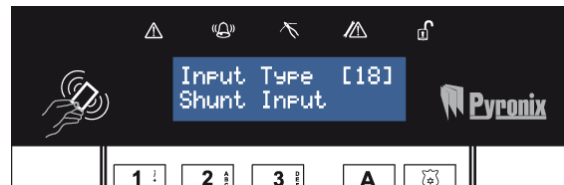
Enter the inputs you would like in the shunt list, after each one press the ⬜✓ key. Each input selected will scroll on the display on the bottom line. If the input you have selected doesn't appear, make sure that input is programmed correctly (Intruder, Tamper, 24Hr or Access).

Once they have all been entered press the ⬜✗ key, and press the ⬜✗ key again. 'Input Partitions' will be displayed, follow the instructions on page: 20 to program the rest.
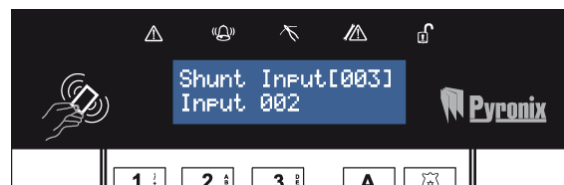
5.7 Assign Keypads/Readers

Ensure that all keypads and readers are addressed correctly before enabling them in this function. Please see page 7 on how to address each individual keypad and reader.

5.7.1 Reader Is:

This option will only appear when you program a Reader into the system. You can then select how you would like the Reader to operate.

Arm Point: This will make the Reader act like a normal keypad (arming/disarming the system etc)

S/Part Control: A reader can be used to create sub-partitions. For example: A keypad may control a full area, but in the partition you may wish to control certain inputs only.

Access Control: If an access control system is installed then you will need to program the reader as this type.

Disarm Only: If you wish to use the Reader to disarm the system only, select this type.

5.7.2 Arm Point Arms

An "Arming Point" means that you can program the keypad / reader to arm certain partitions only. This is used in conjunction with the partitions allocated to a user code.

For example, if a user code is programmed to operate partitions 'A' and 'B', but the keypad / reader is only programmed to arm Partition 'A', then the system will arm only partition 'A'.

5.7.3 Arm Point Disarms

A "Disarming Point" means that you can program the keypad / reader to disarm certain partitions only. This is used in conjunction with the partitions allocated to a user code.

For example, if a user code is programmed to operate partitions 'A' and 'B', but the keypad / reader is only programmed to disarm Partition 'A', then the system will disarm only partition 'A'.

5.7.4 Arm Point In

The keypad needs to be also told which partitions it is operating "in". For example, a keypad may be only needed to operate in Partition A, but other code users may use the keypad to 'quick arm' other partitions (such as a cleaner, director, caretaker etc). Therefore if Partitions A and B are selected in the previous options (Arm point arms and Arm point disarms), but partition A only is selected in 'Arm point in', then partition B will quick arm once a valid tag/code has been entered. To program partitions with their programmed timer, then the partitions need to be entered into the "Arm point in" function.

At default, the PCX 256 will display 'default level', you will then have to select the default arm level you wish the keypad to operate. Arm point arms, disarms and arm point in is only used on a partition system. This is selected under the option 'Use Level Arm' in Site Options.

Visual Keypad Programming Procedure
ASSIGN KEYPADS/READERS

Assign Keypads/Readers

Using the B and X keys, scroll to **'ASSIGN KEYPADS/READERS?'**

Press the ✓ key

Address

Enter the address of the keypad/reader you wish to assign. Press the ✓ key

```
⚠  📣  ✎  ⚠  🔓
ASSIGN KEYPADS/
READERS?              Pyronix
1¹  2²  3³  A  🛡
```
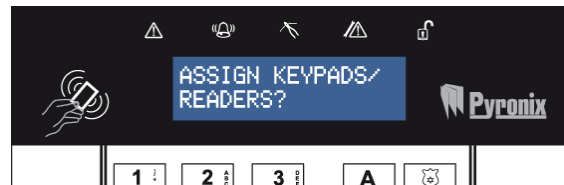
Type

Enter 0 : for **Keypad** (Default for address 00)

Enter 1 : for **Reader**

Enter 2 : for **Not Used** (Default for all other addresses)

Press the ✓ key

```
⚠  📣  ✎  ⚠  🔓
Type
Keypad        [0]     Pyronix
1¹  2²  3³  A  🛡
```
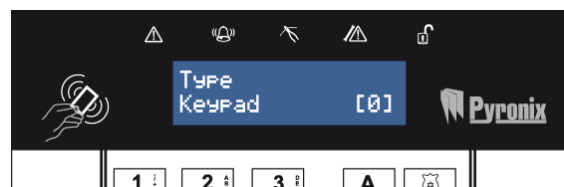
NOTE: This function will only be displayed if you have programmed a Reader.

Reader Is

Enter 0 : for **Arm Point** (Default)

Enter 1 : for **S/Part Control**

Enter 2 : for **Access Control**

Enter 3 : for **Disarm Only**

Press the ✓ key

```
⚠  📣  ✎  ⚠  🔓
Reader is     [0]
Arm Point             Pyronix
1¹  2²  3³  A  🛡
```
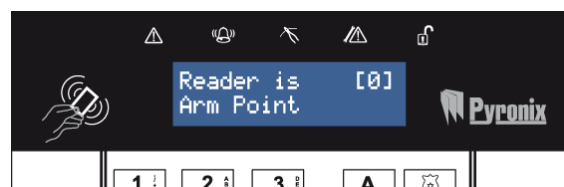
Arm Point Arms / Default Level

Select the Arm Points you would like for 'arming' the system. (or for the 'default level')

Please note the primary partitions are A,B,C & D.
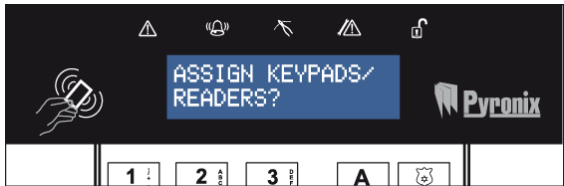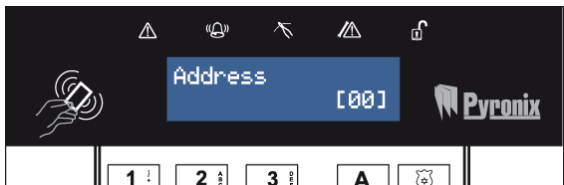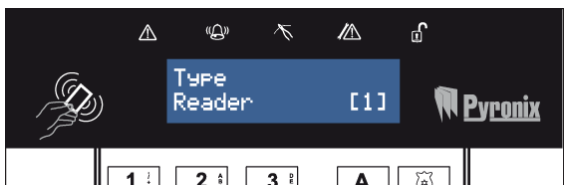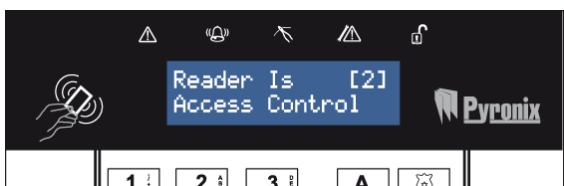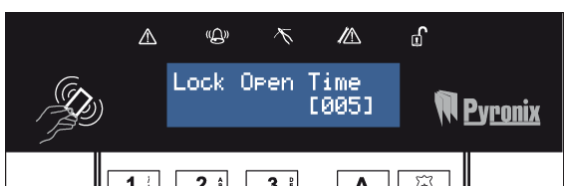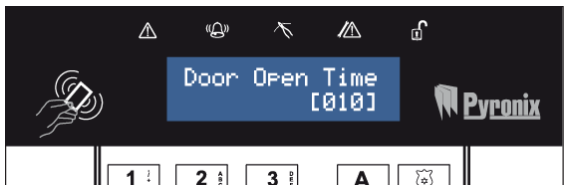
Press the ✓ key. Repeat for Arm Point Disarms and Arm Point In (if partitions are used). Press the ✓ key.

'Arm Point Name?' will be displayed, change the default text if required.

```
⚠  📣  ✎  ⚠  🔓
Arm Point Arms
[0123456789ABCD]      Pyronix
1¹  2²  3³  A  🛡
```
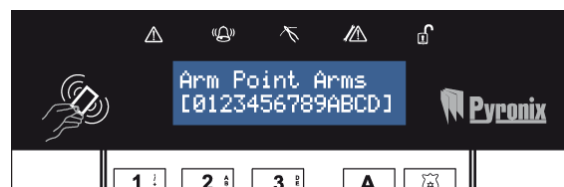
5.7.5 Access Control

The following programming shows how to set up the Access Control facility if you are using it. Also the same programming process applies to 'Entry Control' which allows a tag reader to control an entry point.

Visual Keypad Programming Procedure ASSIGN KEYPADS/READERS Access Control	
Assign Keypads/Readers Using the B and X keys, scroll to **'ASSIGN KEYPADS/READERS?'** Press the ✓ key	ASSIGN KEYPADS/ READERS?
Address Enter the address of the keypad/reader you wish to assign. Press the ✓ key	Address [00]
Type Enter 1 : for **Reader** Press the ✓ key	Type Reader [1]
Reader Is Enter 2 : for **Access Control** Press the ✓ key	Reader Is [2] Access Control
Enter the Lock Open Time (max: 250 seconds). This is the time the door release is going to be active when a valid tag's presented. Press the ✓ key.	Lock Open Time [005]
Enter the Door Open Time (max: 250 seconds). This is the time the door is allowed to be open before triggering an alarm. Press the ✓ key.	Door Open Time [010]

Enter the input number to monitor the chosen door. Please note that this must be selected for the door monitoring to function. Entering '999' disables the monitoring for this door.	⚠ ᵔᵗᵗ ↖ ⚠ ᵈ Door Contact No Disabled [999] 1 2 3 A ☠	
To enter a personal name for the access control, press the ☑ key. Use the text programming to enter this, see page: 10. Press the ☑ key, you will be returned to the engineer menu.	⚠ ᵔᵗᵗ ↖ ⚠ ᵈ Access Ctrl Name? 1 2 3 A ☠	
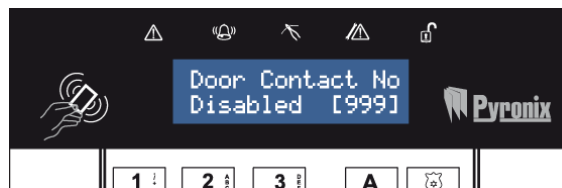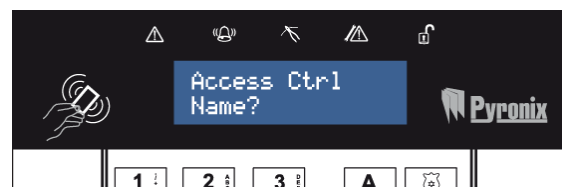
Door Monitoring Facility

If the door is to be monitored by the alarm system only, the door monitoring input should be wired direct to the end station (not via the door station) and programmed appropriately (see table below).

If the door is to be monitored by the door station only (providing local alarm), the door monitoring input should be programmed as omitted in 'Change Inputs' menu. The 'Door Contact No.' should be an input number that is unused on the system.

If the door is to be monitored by the door station and the end station, the door monitoring input should be programmed in the 'Change Inputs' menu (see table below). The 'Door Contact No.' should correspond to this input.

Input Type	Valid door open (i.e. valid tag or 'request to exit')	Door forced (i.e. no valid tag, nor 'request to exit')
Final Exit	Starts entry time, if system armed	Day alarm
Switcher	No response	Day alarm
All other types	No response	Normal input response

NOTES: If input is programmed as 'isolated' then monitoring will be SOLELY at the door station. If the input is to be monitored by the alarm system ONLY, it should be wired directly to the system, and NOT via the door station.

Access User Codes/Tags

To program any user codes and tags for the Access Control system you will need to enter the master manager menu and select 'Change Codes', then 'Change User Codes'. Enter a user code in the normal way, when the system recognises an Access Control unit attached, a new option called 'S/Part Access' will be displayed in this function, here you must select the address of the Access Control unit that you would like the user codes to operate on. Please see the user manual for more information.

5.7.6 Sub Partitions

This feature provides a degree of independent control so that in many systems it may be used as a separate partition. Control is by means of a dedicated Set/Unset Tag Reader located OUTSIDE the sub-partition. No entry/exit route is available. The number of sub-partitions available is limited to the number of setting points not otherwise allocated as keypads, set/unset readers or access control or guard tour points. The maximum sub-partitions are 29.

Each sub-partition may consist of any number of 'intruder' inputs, all of which must be allocated to the same area. No input may be allocated to more than one sub-partition.

Operation may be by proximity tag, or by key (or other) switch wired into the first input on the tag reader. Sub-partitions using switch operation MUST be those on which the inputs are live (i.e. shown in the table on the next page).
Tags for sub-partition control are programmed through the Manager menu.

The controller provides 'Alarm' and 'Can Set' outputs dedicated to that sub-partition. It also provides relevant indications, including Set/Unset status, so should always be located adjacent to the controlling Keyswitch where this is used.

If the option 'Auto Readmits when set' is selected as 'WHEN AREA SET' then the sub-partition will always set when the area in which it located is set. If selected as 'NEVER' it will always require manual setting.

The sub-partition must ALWAYS be unset manually.

An additional option is available the 'SITE OPTIONS' menu, to permit a 'misoperation' (abort) signal to be generated by silencing an alarm at the Controller.

Operation of a sub-partition

Action	Status	Notes
Normal (unset) status	Detectors within sub-partitions are inactive	'Unset' indication lit
Sub-partitions input triggered	No response	
Attempt to set sub-partitions with input in fault	-	'Fault' LED flashes and intermittent tone to indicate 'cannot set'
Set sub-partition with no faults	sub-partition sets (detectors live)	'Unset' indication goes out
Sub-partition input triggered	Alarm generated	'Alarm' LED lights, alarm tone generated
Sub-partition Controller unset	sub-partition unsets	'Unset' indication lights
Valid code entered at a Keypad whilst alarm running	Alarm silenced	Sub-partition remains set.

Visual Keypad Programming Procedure
ASSIGN KEYPADS/READERS
Sub Partition Control

Assign Keypads/Readers

Using the [B] and [X] keys, scroll to **'ASSIGN KEYPADS/READERS?'**
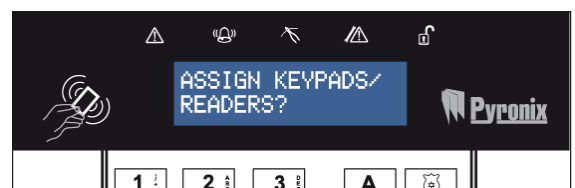
Press the [✓] key

Address

Enter the address of the keypad/reader you wish to assign. Press the [✓] key
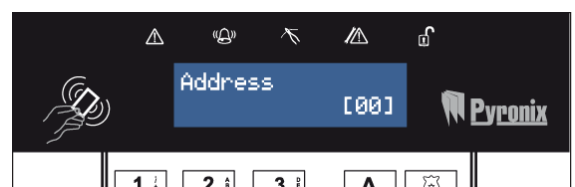
Type

Enter [1]: for **Reader**
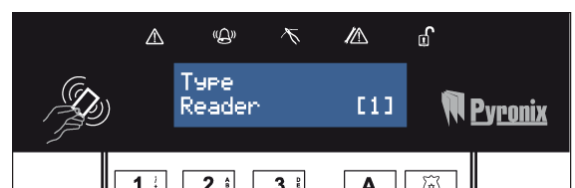
Press the [✓] key

Reader Is

Enter [2]: for **S/Part Control**

Press the [✓] key
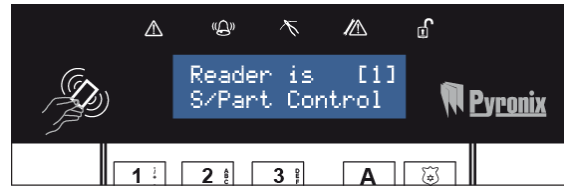
Enter the input(s) you would like in the 'sub-partition'. Press the [✓] key.

They will appear on the bottom display of the keypad, once you have finished entering the required inputs press the [✗] key.
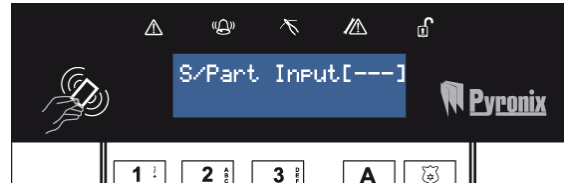
Dependency When

Enter [0]: for **Partition Arm**

Enter [1]: for **Never**

Press the [✓] key
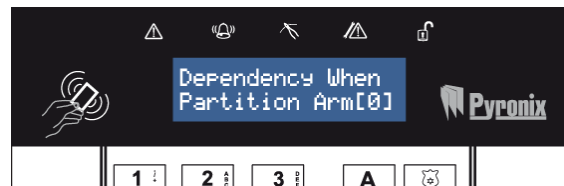
S/Part Control By:

Enter [0]: for **Tag**

Enter [1]: for **Input**

Press the [✓] key
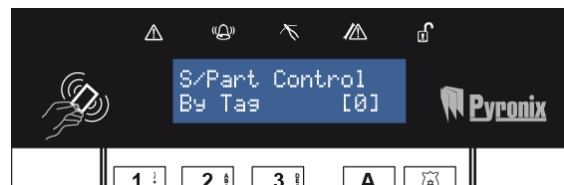
S/Part Name

Press the [✓] key

Enter the device name for the sub-partition – which is referenced when programming tags up in the master manager menu. At default it is called "Device".
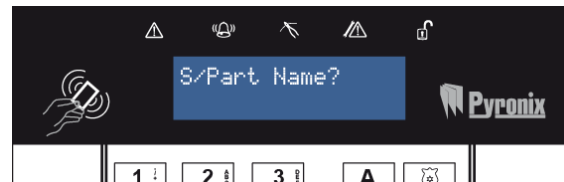
Assigning Tags to Sub Partitions

To assign tags to the sub-partition, enter the master manager mode and select 'Change Codes', add a new user code (tag) and when the prompt shows "S/Part Access", enter the address of the reader you would like the tag to operate for the sub-partitions.

5.8 System Displays

Please see page 10, "Text Programming" section for this function as it requires programming partition text, sign on messages etc.

5.8.1 Partition Texts

You may choose how you want each Partition/Level Arm to be displayed, i.e. "Partition A" may be used to fully arm a house therefore you may want to call it "Full House Arm" for example. You can have a maximum of 16 characters on the display.

5.8.2 Sign On Message

The Sign on Message is the main display on the top line in disarmed mode.

5.8.3 Site Name

The Site Name is used as a "Site Reference" which if used must be also used within the PCX Upload/Download Software in order for the software to connect to the PCX system.

5.8.4 Display When Arm / Display Alarms / Display HU's

If this option is enabled, then the Partition Text will be displayed on the LCD keypad once the system is fully armed. *(The default is No – not compliant with PD6662/EN50131-1)*

If Display Alarms/HU's are enabled, they will show any alarms that are activated before a valid user code/tag is entered. If Display Inputs is enabled, any inputs activated in day mode will be displayed.

Visual Keypad Programming Procedure
SYSTEM DISPLAYS

System Displays Using the ⬚B and ⬚x keys, scroll to **'SYSTEM DISPLAYS?'** Press the ✓ key	
Partition Text Enter the desired text for the partition; press the ✓ key to enter the text for all other partitions. You can also add/change the text for "Full" partition arming, the sign on message and the site name label. Press the ✓ key once you have changed each text display.	
Display When Arm Enter ⬚0 : for **No** Enter ⬚1 : for **Yes.** Press the ✓ key. You will be returned to the Engineer Menu.	
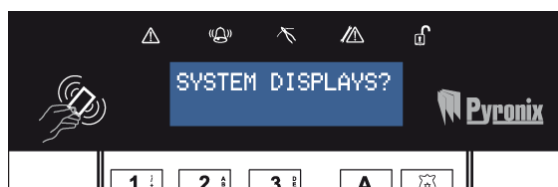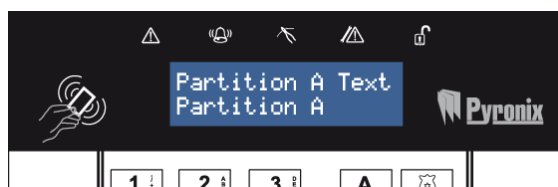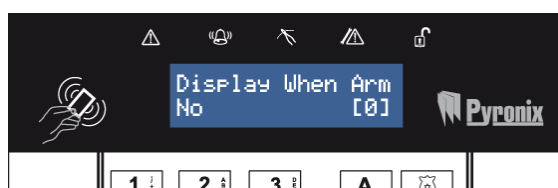
5.9 Change Timers

All the timers can be changed in this function, the table below shows the different timers available and the default values:

Timer	Function	Range	Default
Entry Time	Entry time for each partition.	0 – 255 seconds	30
Exit Time	Exit time for each partition.	0 – 255 seconds	30
Bell Time	Cut off time for external sounder. Separate for each partition.	2 – 15 minutes	15
Confirm Time	Time period during which a second activation must occur to qualify as 'sequentially confirmed' alarm. ***NOTE: DD243 specifies a confirm time between 30 and 60 minutes. This also can be used in conjunction with testing an omit signal.***	1 – 99 minutes	30
Bell Delay	Delay after intruder alarm before bell live. ***NOT valid within 3 minutes of final arm, after entry time started.***	0 – 20 minutes	0
Strobe Time	*Time strobe output remains live after bell time ends .'99' means endless.*	0 – 99 minutes	0
Re-Arm No.	Number of times system re-arms after bell time ends. ***NOTE: Re-arm number applies to each partition, and does not affect emergency alarms. '9' means always re-arm.***	0 – 9	3
AC Signal Delay	Time delay before mains failure or technical alarm signalled. ***NOTE: Arming '250' = never alarms. System change-over to battery supply and associated visual 'Mains Fail' indication is always immediate.***	0 – 250 minutes	40
Speaker	Time speaker and keypad bleeper outputs remain live after bell time ends. '99' means endless.	0 – 250 minutes	0
Final Exit Delay	Time between final exit input closing, and system arming.	0 - 255 seconds	5
Double Knock	Length of filter period applied to inputs with 'Double Knock' attribute.	0 – 75 seconds	10
Pre-Alarm	Delays 'Intruder' output signals if entry time has started. ***Pre-alarm time must be set for 30 seconds to comply with PD6662***	0 – 255 seconds	30
Line Fault	Duration of Telecom Line Fault before 'Line Fault' alarm triggered.	0 – 250 seconds	20
Arm Fail	Time after which 'Arm Fail' operation will be invoked if exit procedure not completed.	0 – 255 seconds	40
Guard Code Alarm	Minimum time an alarm must have existed before a 'Guard' code will be accepted to disarm.	0 – 10 minutes	3
Input NAT Days	NAT stands for Non-Activity. This is used in conjunction with the input attribute 'Monitor Activity', and will monitor the chosen input for the selected number of days.	0-14	14
Input NAT Hours	NAT stands for Non-Activity. This is used in conjunction with the input attribute 'Monitor Activity', and will monitor the chosen input for the selected number of hours.	00-23	0

NOTE: Control of timer for inputs on arm fail test is located in the Engineer Tests Sub Menu

<table>
<tr><td colspan="2">

Visual Keypad Programming Procedure

CHANGE TIMERS

</td></tr>
<tr><td>

Change Timers

Using the [B] and [X] keys, scroll to **'CHANGE TIMERS?'**

Press the [✓] key

</td><td>

CHANGE TIMERS?

</td></tr>
<tr><td>

Timers

The timers as displayed in the table on the previous page will be displayed, adjust the time as required and press the [✓] key. Once you have finished, press the [X] key, you will be returned to the Engineer Menu.

</td><td>

A Entry Time
[030]

</td></tr>
</table>
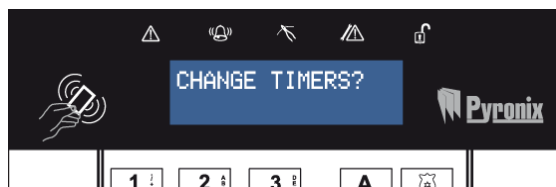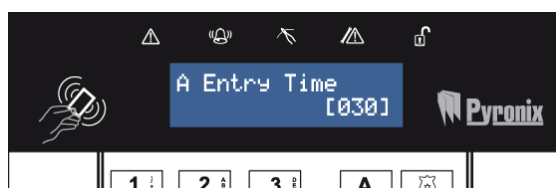
5.10 Set Time and Date

All log entries and the system display include the time and date. This may be also programmed in the Master Manager Mode. *NOTE: Please note that powering down the system will reset the time and date information.*

5.11 Exit Modes

The '**Exit Modes**' operate the arming procedure of the PCX system. The following Exit Modes are available:

5.11.1 Timed

The PCX system will only arm when the programmed Exit Time has expired (See 'Change Timers' page 31) providing that all inputs are closed. **NOTE: This is NOT suitable for systems installed to comply with DD243.**

5.11.2 Final Door

The PCX system will only arm when an input programmed as Entry/Exit (EE) is either closed (if the input was opened when arming started) or its single opening and then closing (if the input was closed). This mode may also be used for 'lock arm' operation: securing the lock completes the arming procedure, unlocking starts the entry time.

5.11.3 Timed/Final

This function follows 'timed' operation, except that the timer will be overridden if an Entry/Exit input is opened and closed before the timer expires (See above: Final Door). **NOTE: This is NOT suitable for systems installed to comply with DD243.**

5.11.4 PTS (Push To Set)

PTS = Push to Set. The PCX system will only arm when a 'Push to Set' button has been pressed. This function will override the programmed Exit Time.

Visual Keypad Programming Procedure
EXIT MODES

Exit Modes Using the B and X keys, scroll to '**EXIT MODES?** Press the ✓ key	EXIT MODES? display
Enter 0 : for **Timed** *(Default)* Enter 1 : for **Final Door** Enter 2 : for **Timed/Final** Enter 3 : for **Push To Set** Press the ✓ key. Repeat for each partition or press the X key to return to the Engineer Menu.	A Exit Mode Timed [0] display
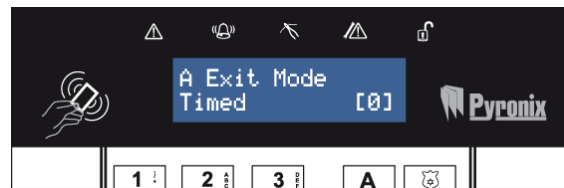
5.12 Change Codes (Duress/Guard Only)

All codes may be 4, 5, or 6 digit or proximity tags. Using a 5 or 6 digit code will automatically block several possible 4 digit codes that clash with it. Please note that the PCX System will only comply with Grade 3 if you have "5 digit codes" enabled (this is enabled at default). *NOTES: Only Duress or Guard codes can be changed by the Engineer, Normal user codes can only be changed in The Manager Mode. The Master User and Engineer Codes cannot be deleted.*

5.12.1 Code Types and Numbers.

PCX System	User/Manager Codes	Duress/Guard Codes
PCX 256	500	20

5.12.2 User Types

User Type	Functions	Operation
User Default: 1234	Arm and Disarm System. Also for Access Control and Sub Partition Control functions	Programmed by Manager only.
Manager	Arm and Disarm System Also access to Manager menu functions	Programmed by Manager only.
Master Manager Default: 5678	Arm and Disarm System. Also access to Manager menu functions	Programmed by Manager or Engineer.
Engineer Default: 9999	Access to all engineering functions; also arm/disarm system for test purposes.	Programmed by Engineer.
Duress	**Disarm system, generating silent 'Duress' or 'Hold Up' signal.** NOTE: ACPO policy prevents use of duress codes to police all purposes.	Programmed by Engineer.
Guard	Disarm system, but only after an alarm has been active for a minimum time (programmable). Also arm system. An output type is available to signal whenever this code is used.	Programmed by Engineer.

5.12.3 User Arm Options

The User Codes can be programmed as the following:

Disarm/Arm: The code will arm and disarm the PCX system *(Default)*

Disarm Only: The code will only disarm the PCX system once it is fully armed.

Arm Only: The code will only arm the PCX system.

None: The code will not be used to arm and disarm the system.

5.12.4 Flexi Arm

If enabled, the user will be able to select which partitions they can arm/disarm, from those the code is valid for.

If disabled, the user code will automatically arm in the selected partition(s). This option is commonly used if a proximity tag has been used on the system. *(Default for Duress Codes)*

<table>
<tr><td colspan="2">

Visual Keypad Programming Procedure

CHANGE CODES
</td></tr>
<tr><td>

Change Codes

Using the B and X keys, scroll to **'CHANGE CODES?** Press the ✓ key
</td><td>

CHANGE CODES?
</td></tr>
<tr><td>

5 Digit Pins

Enter 0 : for **No**

Enter 1 : for **Yes (Grade 3)** *(Default)*

Press the ✓ key
</td><td>

5 Digit Pins?
Yes   [1]
</td></tr>
<tr><td>

Change Duress Codes

Press the ✓ key to Change the Duress Codes, or for the next function press the X key.

NOTE: User codes can only be changed in the user manager mode
</td><td>

Change Duress
Codes?
</td></tr>
<tr><td>

Duress Codes

Enter the required User Number using the numeric keys.

Press the ✓ key

If a code or tag is already allocated, the display will show [******]. Enter the new code, or present a tag to keypad. To erase the existing code press the C key. Press the ✓ key
</td><td>

User Number [01]
</td></tr>
</table>
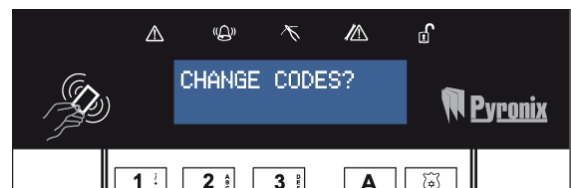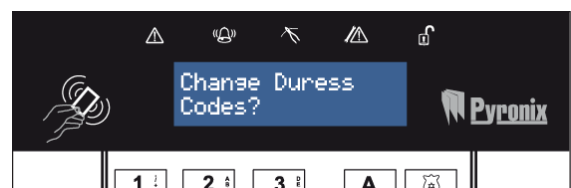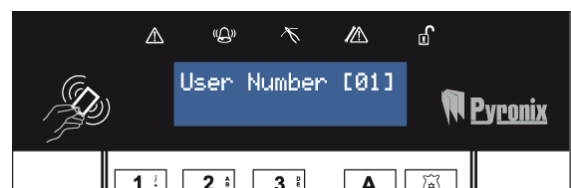
User Type

Enter 2 : for **Duress** *(Default)*

Enter 3 : for **Guard**

Press the ✓ key
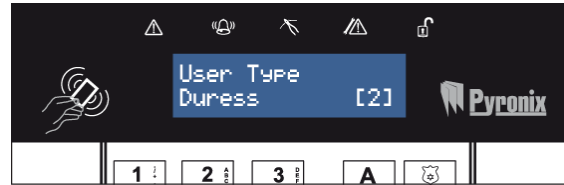
User Partitions

Select the partitions the code will be valid for.

Please note the primary partitions are A,B,C & D.
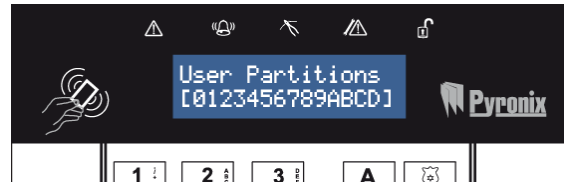
Press the ✓ key

User Arm Options

Enter 0 : for **Disarm/Arm** *(Default)*

Enter 1 : for **Disarm Only**

Enter 2 : for **Arm Only**

Enter 3 : for **None**

Press the ✓ key
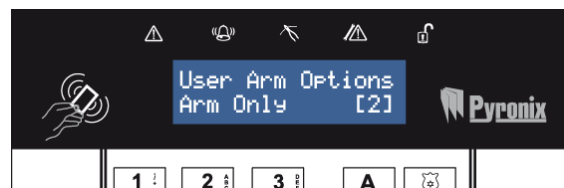
Flexi Arm

Enter 0 : for **No** *(Default)*

Enter 1 : for **Yes**
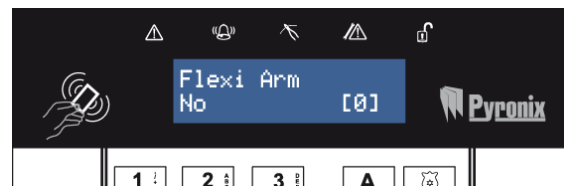
Press the ✓ key

User Name

Enter the text to identify the user. Text Programming is described on page 10.

Press the ✓ key.
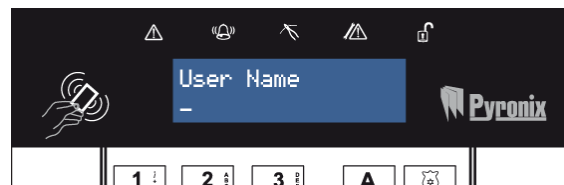
Change Master Manager Code?

Press the ✓ key to Change the Master Manager Code and repeat the options as shown above, or for the next function press the ✗ key.
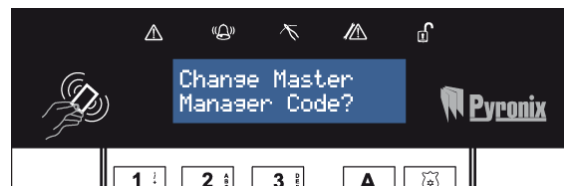
Change Engineer Code?

Press the ✓ key to Change the Engineer Code or for the next function press the ✗ key.

The Engineer Code cannot be deleted.

Press the ✗ key.

You will be returned to the Engineer Menu.
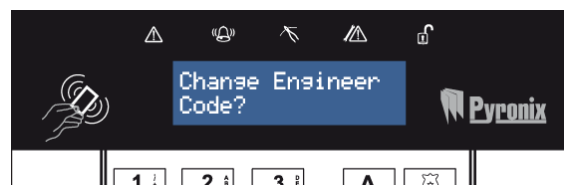
5.13 Volume Control

The Volume Control function applies to the loudspeaker output only. Volume levels at the keypad are programmed individually – please see page: 9.

5.13.1 Volume Settings

Note: 0=Completely Silent, 1=Silent,but sounds a beep when the system is set

The defaults for the volumes of the PCX are as follows:

Entry:	4	Tamper	6
Exit	4	Disarmed	6
Alarm	7	Chime	3
Fire	7	Intelligent Arm	3

5.13.2 Code Stops Sound

If this function is enabled *(Default)*, then once an alarm has been generated (even if the code is not programmed for that partition) the alarm will be silenced, and a 'Misoperation (Abort) signal' will be sent, but the partition will still be armed until a valid user that controls that partition is entered.

5.13.3 E / E Keypads Only

If there is a speaker connected to the SPK output of the PCX system the entry and exit tones will be heard through the speaker. If you would like Entry and Exit tones to be heard on only the keypad and not the speaker then enable this function. *(At default this is disabled)*

5.13.4 Alert Kps Only

If this function is enabled then any Alert tones will be heard on the Keypad only and not the speaker. *(At default this is enabled).*

Visual Keypad Programming Procedure

VOLUME CONTROL

Volume Control

Using the [B] and [x] keys, scroll to **'VOLUME CONTROL?** Press the [✓] key
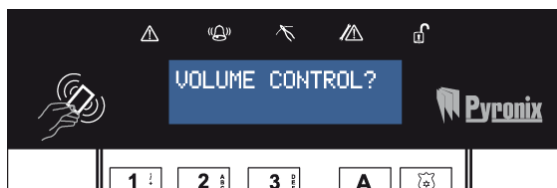
Partition Volume

Use the numeric keys select the volume level required for Entry and Exit tones for each partition, once selected, press the [✓] key.

Repeat for Alarm, Fire, Tamper, Disarmed, Chime and Intelligent Arm tones. Press [✓] key
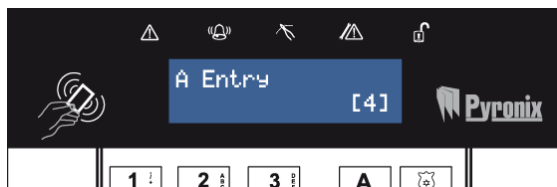
Code Stops Sound

Enter [0] : for **No** / Enter [1] : for **Yes** *(Default)*

Press the [✓] key. Repeat for E/E Keypads Only and Alert Keypads Only. Press the [✓] key.
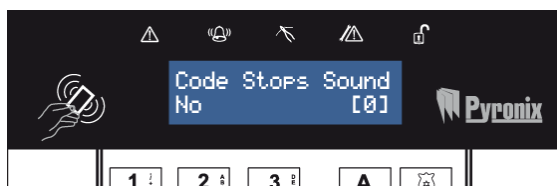
5.14 Alarm Response

The Alarm Response function controls how you would like certain activations to perform.

5.14.1 Silent 1st Alarm

If this function is selected as 'confirmed', then the first alarm to activated on the system will be silent, but the if another input activates (i.e. a confirmed alarm) then the alarm will activate and the alarm tones will be heard.

This option is only valid once the system has been set for 3 minutes and not if the entry time has started. *(The default is selected as 'Never')*

5.14.2 Disable Confirm On Entry

To comply with DD243 clauses 6.4.3 and 6.4.4, this option should be set to YES to disable confirmation once the entry procedure has started. For use with DD243 option 6.4.5, this option should be left at default (No).

If 'Disable Confirm On Entry' is set to **YES** this option will disable **ALL** confirmation signals on entry.

If 'Disable Confirm On Entry' is set to **NO** the confirmation signals are enabled on expiry of entry time.

5.14.3 Inputs to Confirm After Entry

This function accepts a choice of 1 or 2 inputs to trigger after expiration of entry time to qualify as a sequentially confirmed alarm. Note: *Only the "2" setting complies with DD243:2004. (The default is selected at 2)*

5.14.4 Alarm Starts / Stops (Alarm Responses)

The order of which alarm responses are activated can be programmed to your requirements. The alarm activations you can program are: Partitions, Fire, Gas, Hold Ups, and Disarm Alarms and the different alarm responses are: Keypads, Internal Sounders, Sirens Only, Digi and Confirm. The different alarm responses work on a cycle (starting from 'Keypads' and finishing at 'Confirm').

Each alarm response will take 15 seconds before moving on to the next response.

For example, If the alarm response for Partition A **starts** at '*Internal Sounders'* and **stops** at '*Digi*', then once Partition A is armed and an alarm has been activated, the *internal sounders* will be first to activate, then after 15 seconds the Sirens will activate (*Sirens Only*) and then after another 15 seconds the '*Digi*' will activate. You may also program the system to operate on a combined partition basis, for example if both partitions 'A' and 'B' are armed; you may want the process of the alarm responses to change. Therefore you would use the 'If partitions armed' section of this function and select the desired partitions and the alarm responses.

Another example of where this function would become useful is when you have several inputs programmed as '24 hour', you may want the system to only activate the internal sounders in disarmed mode, but when the system is armed you may want both the internal and external sounders to activate. To do this, when you get to "Disarmed Starts", enter '1' for Internal Sounders and press function. "Disarmed Stops" will be displayed, as you do not wish anything else to activate when the system is disarmed, enter '1' for Internal Sounders again. This will make the system only ever activate the internal sounders when an alarm has activated in disarmed mode.

The defaults for this function are as follows:

Partition Starts At	Digi	Partition Stops At	Confirm
Fire, Gas, HU Starts At	Digi	Fire, Gas, HU Stops At	Digi
Disarm Starts At	Bells Only	Disarm Starts At	Bells Only

Visual Keypad Programming Procedure
ALARM RESPONSE

Alarm Response

Using the B and X keys, scroll to **'ALARM RESPONSE?** Press the ✓ key

⚠ 🔔 🔨 ⚠ 🔓
ALARM RESPONSE?
Pyronix
1 2 3 A 🛡
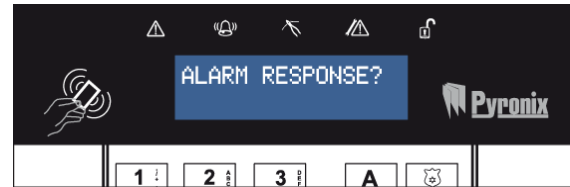
Silent 1st Alarm

Enter 0 : for **Never** (Default)

Enter 1 : for **Confirmed**

Press the ✓ key

⚠ 🔔 🔨 ⚠ 🔓
Silent 1st Alarm
Never   [0]
Pyronix
1 2 3 A 🛡
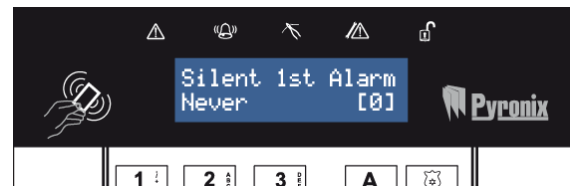
Disable Confirm On Entry

Enter 0 : for **No** (Default)

Enter 1 : for **Yes**

Leave as NO for use with DD243 clause 6.4.5 or change to YES for use with DD243 clauses 6.4.3 / 6.4.4. Press the ✓ key.

⚠ 🔔 🔨 ⚠ 🔓
Disable Confirm
On Entry No [0]
Pyronix
1 2 3 A 🛡
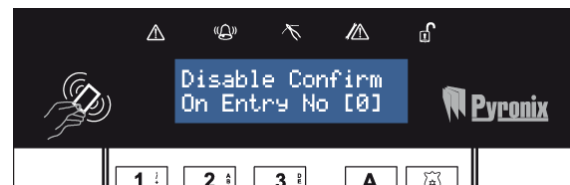
Inputs to Confirm After Entry

Enter the number of inputs to Confirm after the Entry. *(Leave at 2 to comply with DD243)*

Press the ✓ key.

⚠ 🔔 🔨 ⚠ 🔓
Inputs to Confrm
After Entry [2]
Pyronix
1 2 3 A 🛡
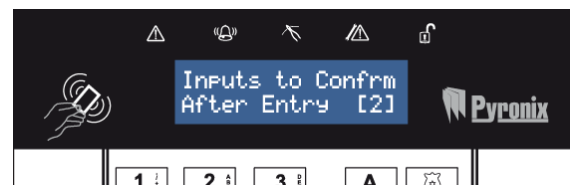
Partition Starts

Enter 0 : for **Keypads**

Enter 1 : for **Internal Sounders**

Enter 2 : for **Bells Only**

Enter 3 : for **Digi** (Default)

Enter 4 : for **Confirm**

For defaults see description above

Press the ✓ key. Repeat for *Partition Stops* and then repeat the above for each other partition and also for Fire, Gas, HU and Disarm alarms

You will be returned to the Engineer Menu

⚠ 🔔 🔨 ⚠ 🔓
Part'n A starts
Digi   [2]
Pyronix
1 2 3 A 🛡
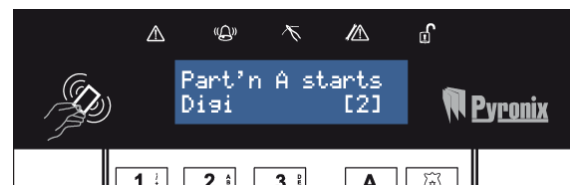
5.15 Change Outputs

The output types below may be programmed to any of the systems PGMs (Programmable Outputs). Also the function 'Change Outputs' is where you install and initialise any Remote Output Expanders you have installed to the system, this is done under the 'ROX Module PGMs'. Please note that the PGMs must be used within their rated capacity.

NOTE: The PGM Outputs <u>CANNOT</u> be inverted. Only the ATE pins can (*See 'Invert ATE Outputs in 'Site Options' page: 47)*

5.15.1 PGM Output Types

| Type		Defaults	Active	Restore
0000	Not Used			
0001	Fire	ATE 1 DIGI 1	At alarm	When a valid code is entered
0002	Hold Up Any		At a HU or Duress alarm *(This includes keypad HU)*	When a valid code is entered
0003	Intruder Any		At alarm, while system is disarmed	At first valid code entry
0004	Final Arm All		When ALL partitions are armed.	At code entry to disarm
0005	Misoperation Any (Abort)		When system is silenced after any 'intruder' output is triggered	After 2 minutes
0006	Confirmed Any	ATE 7 DIGI 7	When further input active in any partition after 'intruder' alarm	At next code entry
0007	Tamper Any	ATE 6 DIGI 12	Any tamper alarm	At code entry to silence
0008	Duress		At a Duress alarm (i.e. from a keypad)	When a valid code is entered
0009	HU Device Any	ATE 2 DIGI 2	At alarm on a HU input only *(This doesn't include the keypad HU)*	When a valid code is entered
0010	Gas		At alarm	When a valid code is entered
0011	Arm Fail		Pre-set time after start of exit time, if exit procedure is not complete	At code entry to rearm
0012	Entry Deviation		When deviation from entry route occurs, during entry time	At code entry to disarm
0013	Secure Intruder Any		At alarm, after exit time started, until disarm	At first valid code entry
0014	Bell Any	PGM 5	When alarm live	When alarm silenced or when siren timer expires
0016	Strobe Any	PGM 4	When alarm live	When alarm silenced or when strobe timer expires
0017	Omit Rearm Any	ATE 5 DIGI 5	At rearm at end of confirm time if an input in fault is isolated	When system disarmed
0018	Unconfirmed Any	ATE 3 DIGI 3	Any intruder or Tamper alarm	At code entry to silence
0019	Can All Arm		If all inputs and technical faults in system are clear.	If fault exists, and after final arm

Type		Defaults	Active	Restore
			Also once entry time has started	
0020	Exit Starts All		At start of exit time to arm LAST partition	At code entry to disarm FIRST partition (i.e. no longer fully armed)
NOTE: For 'exit starts' to be entered in system logs, the site option 'Confirmed when…' must be set to 'exit start'				
0021	Exit Starts Any		When exit time starts to arm FIRST partition	At code entry to disarm LAST partition
0022	Final Arm Any *(Open / Close)*	ATE 4 DIGI 4	When ANY partition is armed	At code entry to disarm LAST partition
0023	Strobe Set Fail		Works similar to output 016, but also fires if the set fail timer expires.	
0025	Keyswitch Disarm		This output turns on for 5 seconds when the system is disarmed via a keyswitch input (either pulsed or latched keyswitch)	
0031	Entry		Live during any exit time	
0032	Exit		Live during any entry time	
0033	Entry/Exit		Live during any entry or exit time	
0034	Lights		When exit or entry timer starts	20 seconds after arm/disarm procedure completed
0035	Follow Input *See page: 43.*		When input triggers	Dependant upon programming
0036	Shunt Fault		*See Shunt Inputs - Page: 21*	
0037	Reset 1 (Viper Reset)		At code entry to arm	After 3 seconds
0038	Reset 2 (Viper Arm/Disarm)		At code entry to arm	When disarmed
			Re-triggers whenever an additional partition is armed	
0039	PIR Latch 1	PGM 1	When armed (and in Walk Test)	At alarm, or when disarmed
0040	PIR Latch 2		This is the inverse polarity to PIR Latch 1	
0041	Mains Good		Output showing the mains is healthy	
0042	Detr Indn Enable		This output activates during walk test and also when a code is entered to view indications – staying activated for the time for which the indications are viewed.	
0043	Follow Test		New output for bell test by activating SAB	
0044	Off During Test		New output for bell test by activating SAB	
0051	Telecom Line Fault		When Line Fault signalled by communicator	When fault clears
0052	AC Fail	ATE 8 DIGI 13	After pre-set time without mains power	On restoration of mains
0053	Battery Faults		When battery disconnected or load fail detected	At next valid code entry
0054	Low Volts		At fault	When fault clears
0055	Global Fault 1 (Grade 2)		Activates if input fault occurs only when system is armed	When all faults cleared
0056	Global Fault 2 (Grade 3)	ATE 9 DIGI 9	Activates if input fault occurs at any time	When all faults cleared
0057	German Relay		*Not applicable for UK installations*	
0058	Guard Code Used		When 'guard' code accepted	After 60 seconds

Type		Defaults	Active	Restore
0059	**Engineer Access**		When entering Engineer Mode	When leaving Engineer Mode
0060	**Initialise Digi**		At power up	Live for 45 seconds
0063	**Test ATE/GSM**		Test signalling through PSTN and GSM. Activates when a test call is sent. (used for specific GSMs)	When test completed
0064	**Test ATS**	ATE 10 DIGI 10	Test signalling through PSTN and GSM. Activates when a test call is sent.	When test completed
0065	**Zone Activity F1**		Activates when there is no activity on a zone with respect to the "NAT timers" in Change Timers.	When there is activity.
0066	**ATE Not Used**		Makes the ATE pin 5V.	
A repeating block of output types should be noted:				
0202	**Hold Up A**		As 0002 for Partition A / Arm Level A events only	
0203	**Intruder A**		As 0003 for Partition A / Arm Level A events only	
0204	**Final Arm A**		As 0004 for Partition A / Arm Level A events only	
0206	**Confirmed A**		As 0006 for Partition A / Arm Level A events only	
0207	**Tamper A**		As 0007 for Partition A / Arm Level A events only	
0208	**Duress A**		As 0008 for Partition A / Arm Level A events only	
0209	**HU Device A**		As 0009 for Partition A / Arm Level A events only	
0213	**Secure Intr A**		As 0013 for Partition A / Arm Level A events only	
0214	**Bell A**		As 0014 for Partition A / Arm Level A events only	
0216	**Strobe A**		As 0016 for Partition A / Arm Level A events only	
0217	**Omit At Rearm A**		As 0017 for Partition A / Arm Level A events only	
0218	**Unconfirmed A**		As 0018 for Partition A / Arm Level A events only	
0219	**Can Arm A**		As 0019 for Partition A / Arm Level A events only	
0220	**Exit Starts A**		As 0020 for Partition A / Arm Level A events only	
Then this pattern repeats for each other partitions so that:				

0221-0240 Partition / Arm Level B   **0361-0380** Partition / Arm Level 4
0241-0260 Partition / Arm Level C   **0381-0400** Partition / Arm Level 5
0261-0280 Partition / Arm Level D   **0401-0420** Partition / Arm Level 6
0281-0300 Partition / Arm Level 0   **0421-0440** Partition / Arm Level 7
0301-0320 Partition / Arm Level 1   **0441-0460** Partition / Arm Level 8
0321-0340 Partition / Arm Level 2   **0461-0480** Partition / Arm Level 9
0341-0360 Partition / Arm Level 3

1xxx	**Follow input xxx**		When input is activated	When input clears
i.e. add 1000 to the input number to select output required				
NOTE: The following additional configurations are available, but are NOT programmable:				
	Partition Sounder		The outputs of the RIX2 and PROX/INT are fixed as a loudspeaker and can be used as a partitioning sounder, partitions are selected in the 'Assign Keypads' section – see page: 24	

5.15.2 STU / ATE Pin Outputs (Defaults)

Any communicating device with the industry standard footprint may be plugged onto the control panel STU / ATE (Alarm Transmission Equipment) pins. The default types for the footprint are as follows:

COM LOOM	Default Type	PGM Number
1 (Blue)	Fire	0001
2 (Orange)	HU Device Any	0009
3 (Yellow)	Unconfirmed Any	0018
4 (Brown)	Final Arm Any	0022
5 (Purple)	Tamper Any	0007
6 (Green)	Confirmed Any	0006
7 (Black)	Omit Rearm Any	0017
8 (Purple)	AC Fail	0052
9 (White)	Global Fault 2	0056
10 (Light Grey)	Test ATS	0064

NOTE: There is an "Invert ATE outputs" option for use with positive removed signalling. Insufficient current is available for any other application. Please see 'Site Options, page 47.

These are programmed in 'Change Outputs' under 'Endstation PGMs'.

For programming of the onboard Digi channels please see page: 58.

5.15.3 PCX-PROX/EXT PGM Output

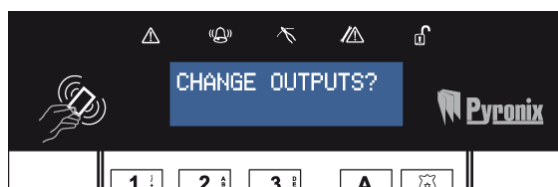The RED LED on the PCX-PROX/EXT can be programmed so that it follows an output.

To achieve this, go to 'CHANGE OUTPUTS' and then 'Reader PGMs' and program the first PGM output (PGM1) to whichever type is required.

For example you may want the Prox to show the system armed, therefore you can use the output "0204: Final Arm A". The RED LED will then be illuminated once Partition A has armed.

<table>
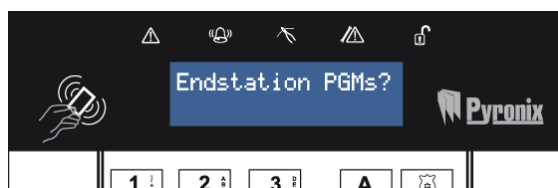<tr><td colspan="2">Visual Keypad Programming Procedure
<u>CHANGE OUTPUTS</u></td></tr>
<tr><td>

Change Outputs

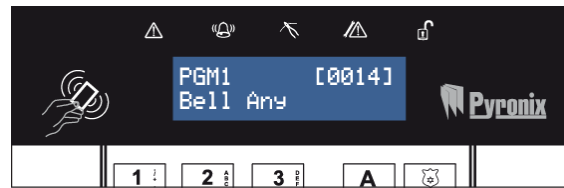Using the [B] and [X] keys, scroll to **'CHANGE OUTPUTS?'** Press the [✓] key

</td><td>

CHANGE OUTPUTS?

</td></tr>
<tr><td>

Endstation PGMs

To program the control panel PGMs and the STU/ATE pins press the [✓] key.

</td><td>

Endstation PGMs?

</td></tr>
</table>

PGMS

Select the output type for the PGMs and press the ✓ key. Repeat for each PGM.

PGM1   [0014]
Bell Any

ATE PINS

When the display shows "ATE pin" you can decide what you would like the STU / ATE pins to be programmed as. Select the output type for the ATE pin and press the ✓ key. Repeat for each pin.

ATE Pin 1 [0001]
Fire
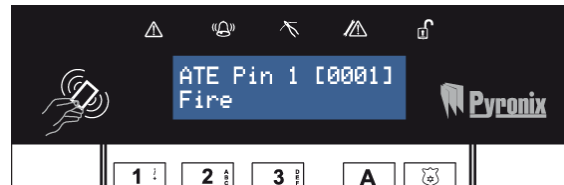
RIX PGMS

Once you return to the sub-menu 'Endstation PGMs' press the ✗ key, the display will show 'RIX PGM's', press the ✓ key.

Enter the address of the RIX. Press the ✓ key.

Select the output type for the PGMs and press the ✓ key. Repeat for each PGM (and RIX address once you have pressed the ✗ key)
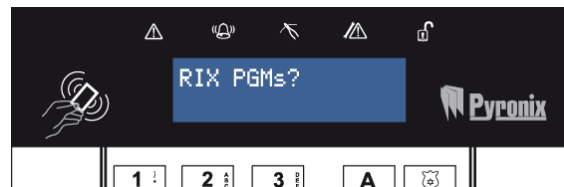
RIX PGMs?

ROX Module PGMS

Once you return to the sub-menu 'RIX PGMs' press the ✗ key, the display will show 'ROX Module PGMs', press the ✓ key if you have a ROX module installed.

RIX Module
PGMs?
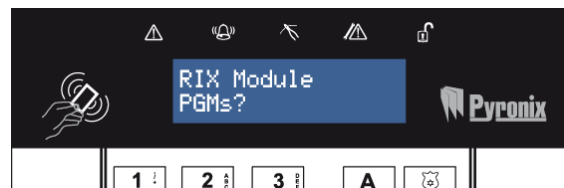
ROX Installed?

If there are remote output expanders connected to the system, you will need to assign the address here.

Enter 0 : for **No** *(Default).* Enter 1 : for **Yes.**

Press the ✓ key. **If Yes is selected, 'ROX Address' will be displayed. Enter the address, and Press the ✓ key.** Select the output type for the PGMs and press the ✓ key. Repeat for each PGM (and ROX address once you have pressed the ✗ key)
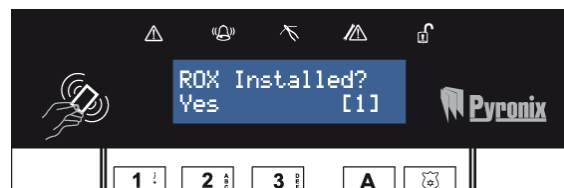
ROX Installed?
Yes   [1]

Keypad PGMs?

Repeat for the Keypad PGMs. Press the ✗ key

Repeat for the Reader PGMs. Press the ✗ key

You will be returned to the Engineer Menu.

Keypad PGMs?
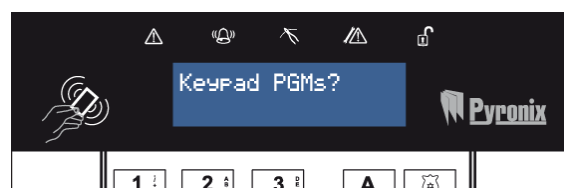
5.15.4 The 'Follow Input' PGM

If the expander card is installed the PGM output 'Follow Input' is made available. This output provides the following functionality:

➢ Follow (whilst input active), **TIMED** or **LATCHED** output

➢ Follow individual **INPUT**, **PARTITION**, **SUB PARTITION** or **SHUNT LIST**

➢ Follow **WHEN ARMED**, **WHEN DISARMED** or **ALWAYS**

NOTE: The Follow Input type WILL NOT function correctly if assigned to ATE pins.

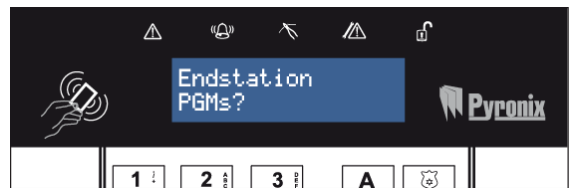| Visual Keypad Programming Procedure CHANGE OUTPUTS Follow Input	
Change Outputs Using the B and X keys, scroll to **'CHANGE OUTPUTS?'** Press the ✓ key	CHANGE OUTPUTS?
Endstation PGMs To program the control panel PGMs and the STU/ATE pins press the ✓ key. Select the PGM you desire, and select the output type as '0035' = Follow Input. Press the ✓ key.	Endstation PGMs?
Follow Type? Enter 0 : for **Follow** *(Default)* Enter 1 : for **Timed** *(You will need to enter the time you would like the PGM to be activated for - in seconds)* Enter 2 : for **Latched** Press the ✓ key.	Follow Type Follow [0]
Follow What? Enter 0 : for **Input** *(Default)* Enter 1 : for **Shunt List** Enter 2 : for **Sub Partition** Enter 3 : for **Partition** Press the ✓ key.	Follow What? Input [0]
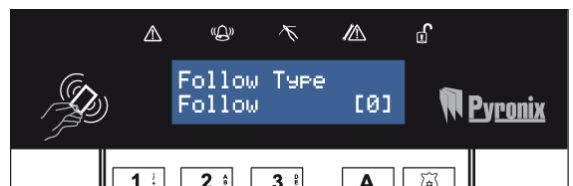
Follow When?

Enter [0]: for **When Arm**

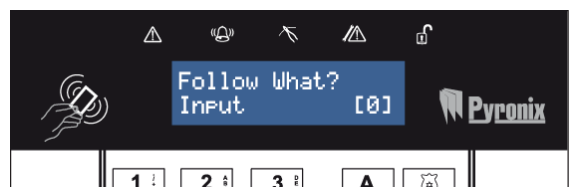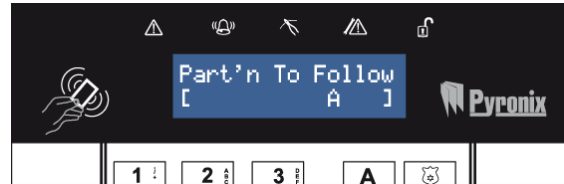Enter [1]: for **When Disarm**

Enter [2]: for **Always** *(Default)*
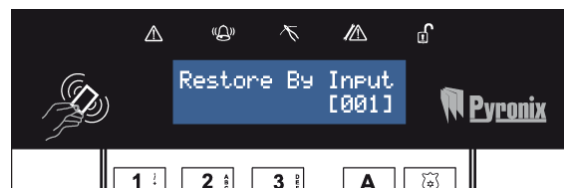
Press the [✓] key.

Enter the partition you wish to follow (if you chose: 'Follow What': Partition) or the corresponding option you selected.

NOTE: The primary partitions are A, B, C & D.

Restore by Input

Insert the number of the input to be used for performing the reset. (if latched was selected) This may be a suitably located switch, etc. wired as an input, or any other input on the system.

5.16 Intelligent Arm

The PCX system allows the facility where you can automatically initiate a different arm mode or partition when you activate a chosen input (rather than having to choose a different arm mode via the keypad). This is known as "Intelligent Arming".

Please note that when Intelligent Arming has been enabled the exit tone will be at 'intelligent' volume. See Change Volume on page 35.

5.16.1 Intelligent Arm for User Level Arming

If you are using Intelligent Arming for 'level arming', you can automatically switch to another arm mode when the nominated input is activated.

For example, if input 3 is selected for Intelligent Arming, then once this input is activated during the exit time for Arm Mode A, the system will automatically quick arm Arm Mode B.

To select the system for level arming please see the "Use Level Arm' in Site Options on page: 47.

5.16.2 Intelligent Arm for Partition systems

If you are using Intelligent Arming for a partition system, you can automatically omit partition B from the system when the nominated input is activated.

For example, if input 3 is selected for Intelligent Arming, then once this input is activated during the exit time for all Partitions, the system will automatically omit partition B and quick arm the remaining partitions.
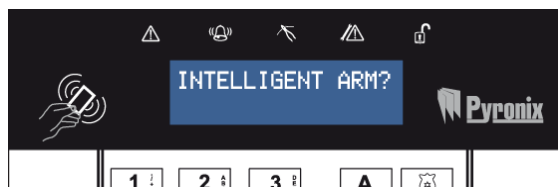
To select the system for partition arming please see the "Use Level Arm' in Site Options on page: 47.

Visual Keypad Programming Procedure
INTELLIGENT ARM

Intelligent Arm Using the B and X keys, scroll to **'INTELLIGENT ARM?'** Press the ✓ key	INTELLIGENT ARM?
Intelligent Enter 0 : for **No** *(Default)* Enter 1 : for **Yes** Press the ✓ key.	Intelligent Yes [1]
Use the numeric keys to select the input(s) that will cause Intelligent Arming to occur. Press the ✓ key. You will be returned to the Engineer Menu.	Intelligent [04] Input 04
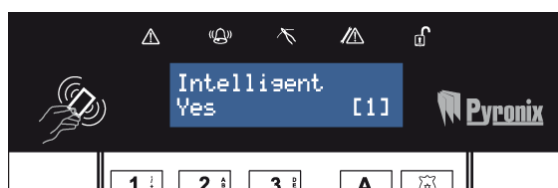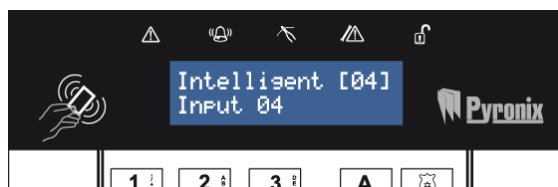
5.17 Site Options

A full range of site options is available to tailor the operation of the system.

5.17.1 Site Option Types

| Option	Default	Function
Arm With Fault	Yes	If '**YES**': Allows arming with the following faults active: Device fail, Mains fail, Battery faults, Fuse faults, SMS failure, relay sirens 1&2, STU/ATE Strobe faults.
Arm With Tamper+	No	If '**YES**': Allows arming with the following faults active: Case tamper and System tampers.
Arm With ATS Fault	Yes	If '**YES**': Allows setting with the following faults active: Telecom line fail, Modem failed, STU/ATE line fault, STU/ATE one path fail, Digi dial fail, STU/ATE comms fail.
Arm With Part TFault	Yes	If '**YES**': Allows a sub-partition to be armed if mains, battery, telecom line, or other system fault is present.
Arm Fail = Alarm	No	If '**YES**' = A graduated alarm will be generated when 'Arm Fail' timer expires (see Change Timers), if exit procedure is still incomplete. Arm fail output will trigger. If '**NO**' = Exit time will continue until the Exit route is clear.
Do Bat Load Test	No	If '**YES**': Programmes the system to perform a full load test of the battery at 7.00am each day.
Part Misoperation	No	If '**YES**' Allows a Misoperation (Abort) signal to be generated without the entry of a valid code into the system when sub-partition is operated after an alarm.
Strobe Confirm	No	If '**YES**': A 'STROBE ANY' output will be activated for 5 seconds as the system arms. *Use with care, in view of potential security risk.*

Re-Arm Omits	No	If '**YES'**: At rearm at the end of the confirmation time, this function will force an input (not a system tamper) causing an unconfirmed alarm to be omitted, whether it's still in fault or not.
Use Level Arm	No	If '**YES'**: The system becomes a 'level arm' (Having one partition set only at any one time, e.g. part sets). If '**NO'**: The system becomes a 'partition' system (setting more than once area at a time)
Confirmed When	Final Arm	**Final Arm**: Confirmed signal only available after the system is armed. **Exit Starts:** Confirmed signal only available after the exit time has started. *NOTE: Not compliant with DD243.* Note: 'Exit Starts' must be selected in order for it to be entered in the logs.
AutoSet Force	No	If '**YES'** when autoset is in use (this is only available in the ARM software) the panel will still set even if an input is open at the time.
Restrict PIN Use	No	If '**YES'** the system prevents a pin code being entered on the Entry Time, but allows the system to be silenced once in alarm. *NOTE: This option should always be selected when DD243 option 6.4.5 is in use.*
Invert ATE O/Ps	Yes	If '**YES'**: 'Positive Removed' If '**NO'**: 'Positive Applied'
Common Exit Mode	Yes	If set to '**YES'**, this will automatically select the 'highest' exit mode for all partitions. (0 = Timed, 1 = Final Door, 2 = Timed/Final Door, 3 = PTS). For example, if Partition C is selected as Final Door and the rest of the partitions are selected as Timed, then because Final Door is 'higher' than Timed (Final door is 1 and Timed is 0), all partitions will be set to Final Door. If set to '**NO'** the Exit Modes will be individually programmable to each partition.
Flexi Unset	No	If set to '**YES'**, this will allow all codes with Flexi-Arm attribute enabled to pick and choose which partitions to arm/disarm during entry time. *NOTE: This option should always be selected when DD243 option 6.4.5 is in use.*
2 Key HU	None	2 Key Hold Up Alarm at the keypad. The 1 and ⑦ keys, pressed simultaneously to produce a hold up. **None:** Inactive **Silent:** Silent Hold Up **Bells:** Only: Bells Only (No signalling) **Both:** (Signalling and Bells)
ATE Inputs	None	Permits selection of inputs on 'plug on' communicator to suit 'ATE' (including Red Care Reset), 'DigiCom' (including Telback), 'Relay Interface Monitoring' or 'Not Used'. *Note: This option must be set to 'ATE' or 'Digi' in order for Line Fault, etc. monitoring to function. This option is NOT required for use with the digi-modem.*

Visual Keypad Programming Procedure
SITE OPTIONS

Site Options

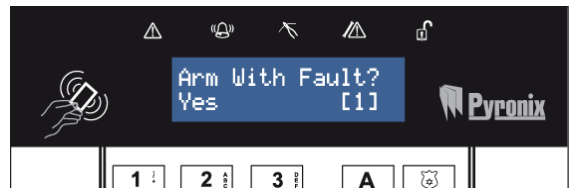Using the B and X keys, scroll to **'SITE OPTIONS?'** Press the ✓ key

SITE OPTIONS?
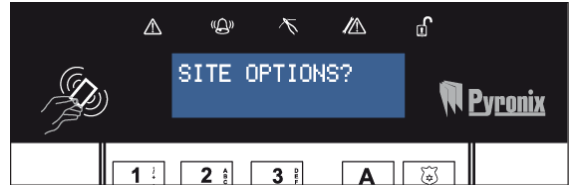
Arm with Fault

Enter 0 : for **No**

Enter 1 : for **Yes** *(Default)*
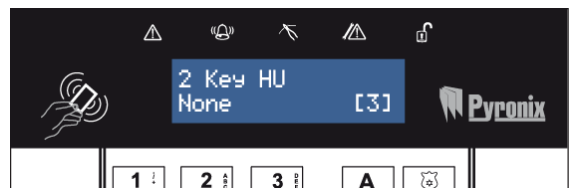
Press the ✓ key. Repeat for all other options until:

Arm With Fault?
Yes   [1]

2 Key HU

Enter 0 : for **Silent.**

Enter 1 : for **Bells Only**

Enter 2 : for **Both.**

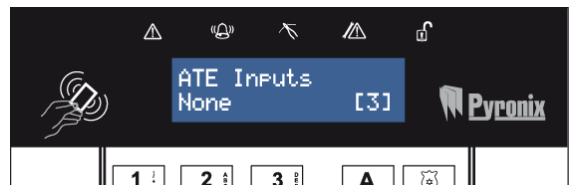Enter 3 : for **None** *(Default)*

Press the ✓ key.

2 Key HU
None   [3]

ATE Inputs

Enter 0 : for **ATE.**

Enter 1 : for **Digi**

Enter 2 : for **Relay**

Enter 3 : for **None** *(Default)*

Press the ✓ key. You will be returned to the Engineer Menu.

ATE Inputs
None   [3]

5.18 Engineer Reset Options

The Engineer Reset Options are used so that once an alarm has occurred; the PCX system can only be reset by an engineer code, anti code or red care reset from the alarm receiving centre.

Option	Function
Engineer Restore of Intruder	Following an intruder alarm, an engineer must reset the system before it can be used again. Please select 'UK Intruder' to enable this, 'Secure Intruder' should not be used. This will not interfere with the generation of an emergency alarm. *The default is NO*
Engineer Restore of HU	Following a Hold Up, Input HU or Duress alarm, an engineer must reset the system before it can be used again. This will not interfere with the generation of a Fire or Gas (emergency) alarm. *The default is NO*
Engineer Restore of Tamper	Following a Tamper alarm, an engineer must reset the system before it can be used again. This will not interfere with the generation of an emergency alarm. *The default is YES*
Engineer Restore of Soak	In the event of an input with the 'soak' attribute triggering whilst the system is armed, the system must be reset by an engineer before it can be used again. This will not interfere with the generation of an emergency alarm. *The default is NO*
Engineer Restore of Confirmed	Following a confirmed alarm, an engineer must reset the system before it can be used again. *The default is NO*
Engineer Restore of Faults	If selected, an engineers code will only be able to reset the following faults: STU/ATE telecom fail, Modem fail, STU/ATE single path fail, Telecom line fail, Battery disconnect, Batt charge, Batt load, Excessive charge, Battery critical, Device fail. *The default is NO.*
Anti Code Restore	Enables the system to display an anti-code whilst awaiting an Engineer reset, which can be used to generate a special reset code. *The default is NO.*

Visual Keypad Programming Procedure
ENGINEER RESTORE OPTIONS

Engineer Restore Options

Using the [B] and [x] keys, scroll to **'ENGINEER RESTORE OPTIONS?'** Press the [✓] key
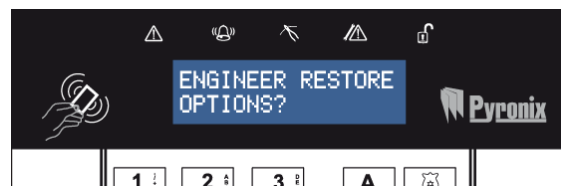
Eng Restore Int
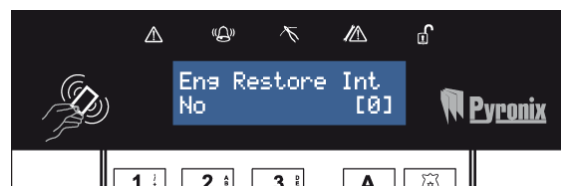
Enter [0]: for **No** *(Default)*

Enter [1]: for **UK Intruder**

Press the [✓] key.

Repeat the above options for the restores: Tamper, Soak, Confirmed, Faults and Anti Code Restore. (Enter [0]: for **No,** [1]: for **Yes**)

You will be returned to the Engineer Menu.

5.19 Review Logs

There are two logs available on the PCX system:

➢ **The Panel Log:** Includes all Arm, Disarm and Alarm events. The code holder performing any operation may be identified by pressing the $\boxed{C}$ key. The panel log also includes all system faults, details of engineer access etc.

➢ **The Access Log:** Includes all Access Control and Guard Tour events.

With each log, use the $\boxed{D}$ key to move from one event to the previous event. The $\boxed{B}$ key will move from one event to the next event that occurred.

To view additional details, press the $\boxed{C}$ key. If no other information is available, the display will move to the next log entry. Pressing the $\boxed{A}$ key will return to the main screen for that entry.

Information on all fault codes that appear in the log can be seen on page: 65.

5.19.1 Log Entries

The PCX 256 holds up to: 3000 log entries

5.19.2 Code Identification

The codes that are entered into the PCX system are identified as follows:

Code	Identity
Engineer Code (default 9999)	Engineer
Master Manager Code (default 5678)	Master Manager
User (Or Manager) 001-500	Users 001 to 500 programmed through the Master Manager menu.
Duress (or Guard) 01-20	Codes 01-20 programmed through the Engineer Menu.
"Input Switched"	Key or other switch used through an input

5.19.3 Device Fail Codes.

Fault codes shown in the system log include numeric code to identify the equipment at which the fault is present. For example:

```
Device Fail 203
Mains Fail 400
```

The first digit identifies the type of device:

1 = Control Panel
2 = Keypad
3 = Tag Reader or External Proximity Reader
4 = Remote Input Expander (RIX)
5 = Remote Output Expander (ROX)

The remaining digits identify the address of the device, so if the display showed "Device Failure 203", then there would be a possible wiring fault on the keypad that is addressed as "03". If the display showed "Mains Failure 400", then the power supply fitted to the RIX addressed as "00" needs to be checked.
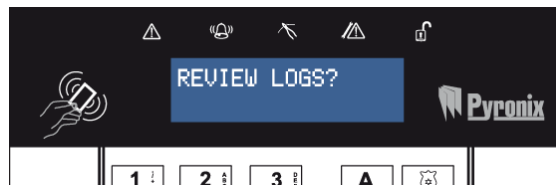
Please note a list of all the fault codes and log meanings are shown on page: 65.

Visual Keypad Programming Procedure **REVIEW LOGS**	

Review Logs

Using the B and X keys, scroll to **'REVIEW LOGS?'** Press the ✓ key

REVIEW LOGS?

Panel Log

Press the ✓ key to view the panel log.

You will be returned to the Engineer Menu.

Panel Log?
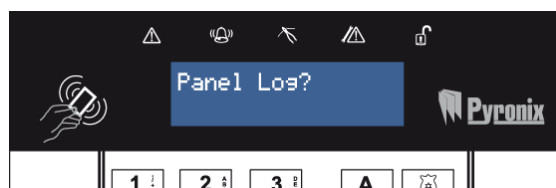
The log will be displayed. Use the B and
 D keys to scroll through the log. For more information on an event (such as alarm silenced for example) press the C key.

When you wish to exit, press the X key.

22.09   22:51:47
Disarm
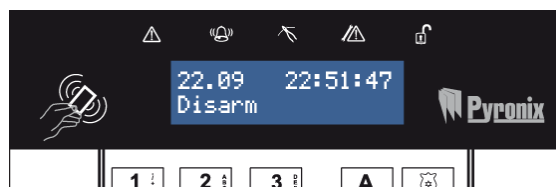
Access Log

Repeat the above for the Access log. When you wish to exit, press the X key. You will be returned to the Engineer Menu.

Access Log?
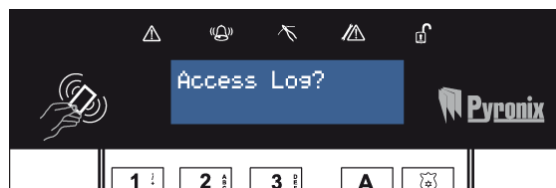
5.20 Engineer Tests

The Engineer Tests function allows the engineer to test inputs, PGM's, batteries and the bell.

5.20.1 Sounds To Play

This function allows you to listen to the different tones the PCX system makes so you can recognise them. They have a choice of: Chime, Chime Follow, Exit, Exit Fault, Entry, Tech Fault, Tamper, Alarm, PA, and Fire. *(The default is No Sound)*

5.20.2 Walk Test

Please note that the walk test feature can only be used when engineer's mode is exited after the programming of inputs.

This function allows the engineer to test all programmed inputs on the system. The inputs that haven't been activated will be shown on the display. Once all the inputs have been walk tested, 'Walk Test Completed' will be displayed.

When walk-testing a double-knock detector, it must be triggered twice within the preset period. When testing dual-trip detectors you must first open detector one and then trigger the second detector; next open the second detector and trigger the first detector.

5.20.3 Test Control

Any input may be placed on 'soak test' to prevent it from generating an alarm. If the input triggers whilst the system is armed, it will indicate the activation and enter the details in the system log. You can also enter the number of days you would like the soak test to last, after this period the inputs will be active.

5.20.4 Test Bell

Any outputs programmed as Any Siren or Any Strobe will be activated in this test.

5.20.5 Do Battery Load Test

Battery Test

The system performs a check of the battery operation every 10 seconds, by dipping the power supply voltage momentarily, and measuring the system voltage. If the battery voltage measured is below 12.0V, or the battery fuse has failed, a 'BATTERY FAULT 100' warning will be generated.

Battery Load Test

PCX Systems may be programmed to perform an automatic battery load test at every power supply at 07.00am each day. This will drop the power supply voltage below the battery voltage, whilst monitoring the system diagnostics.

The test will NOT take place if:

- ➤ The End Station bell and strobe PGMs are live
- ➤ The system is in Engineer Mode
- ➤ Any battery faults exists
- ➤ Any mains fault exists
- ➤ The site option is not selected

If the test has already started, it will be aborted if any of these conditions apply, other than entry into Engineer Mode. If the test is aborted, it will NOT be performed until the next day.

This is selected in SITE OPTIONS under "Do Battery Load Test". The test may also be performed as required, under engineer control.

5.20.6 Test PGMs

The engineer can test all the Programmable Outputs on the End Station and the ROX's. This test can also be used to test the ATE pins, all you need to do is select the outputs you have chosen for the pins and test them, the signal will be then sent out on both the programmable outputs and the ATE pins.

Please note that some ARC's require that you signal events continuously, therefore 'Force Arm On 1st Input' should be used. Please see page: 12

5.20.7 Test PHC Communications

Before SMS signalling can be used, it must be initialised by communication with the Pyronix Host Computer (PHC). Once the test has completed, SMS texting can be performed.
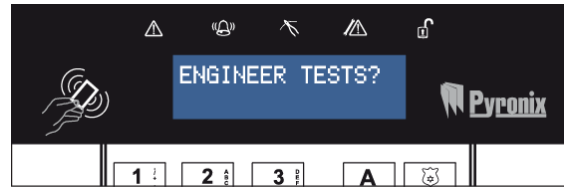
PLEASE NOTE ALL PHC CALLS COST 50p PER CALL

Visual Keypad Programming Procedure		
ENGINEER TESTS		

Engineer Tests

Using the B and X keys, scroll to **'ENGINEER TESTS?'** Press the ✓ key

ENGINEER TESTS?

Sound To Play

Press the D key to select which sound which sound you would like to hear. Press the ✓ key.

Sound to play
Chime Follow[02]
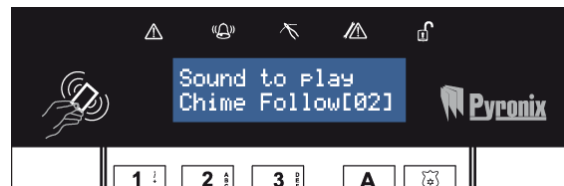
Walk Test

Press the ✓ key to enter Walk Test.

Select the partitions to be tested. Press the ✓ key
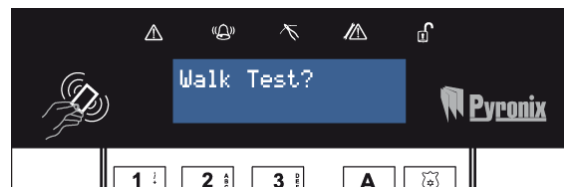
Walk Test?

The display will scroll through all the inputs not yet tested. Walk test each input. As each input is triggered, a chime will sound and that input will disappear from the scrolling list. Press the ✓ key.Once the last remaining input has been tested, the following screen appears. Press the ✓ key. 'Walk Test' will be display, press the X key.

Walk Test Inputs
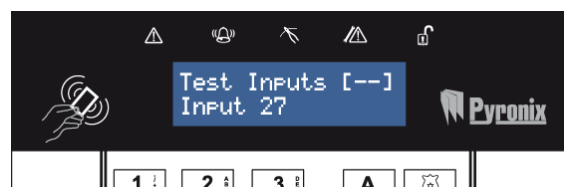Input 01
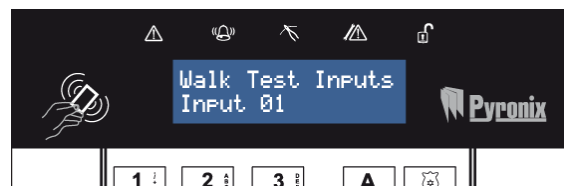
Test Control?

To enter the Test Control press the ✓ key

Test Control?
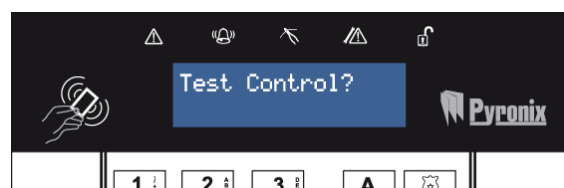
Enter the number of the inputs you wish to soak test and press ✓. The input number shows on the scrolling list. Repeat for each input to be tested. To remove an input from the list, enter its number again. Press the X key.

Test Inputs [--]
Input 27

Test Days Left

Enter the number of days the soak test will last. Press the ✓ key. Enter the number of days the soak test will revert to in the event a soak input is triggered during testing. Press the ✓ key. 'Test Control' will be displayed, press X
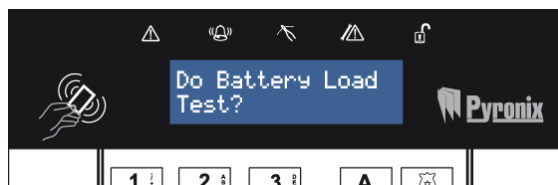
Test Days Left
[05]
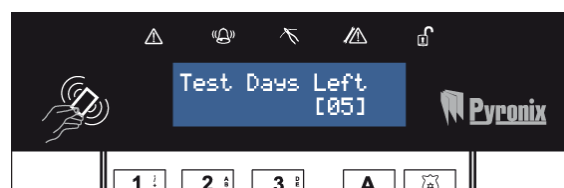
Test Bell?

To Test the Bell press the ☑ key. All outputs programmed as either Bell or Strobe will be tested. "Testing Bell will be displayed" Press the ☒ key to stop the test. 'Test Bell' will be displayed, press the ☒ key.
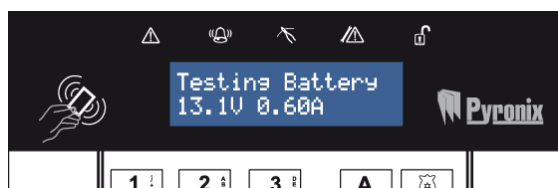
```
Test Bell?
```
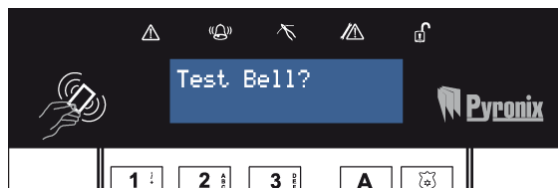
Do Battery Load Test?

To perform a Battery Load Test, press the ☑ key.
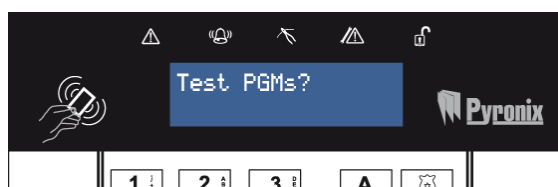
```
Do Battery Load
Test?
```

The Battery Load test will be started.

Once the Battery test has completed, press the ☑ key, 'Do Battery Load Test' will be displayed, press the ☒ key.

```
Testing Battery
13.1V 0.60A
```

Test PGMs?

To test the PGMs press the ☑ key.

```
Test PGMs?
```

Select the PGMs you would like to test (see page 38 for the PGM types) and press the ☑ key.

All outputs programmed as the type selected will be active. Press the ☒ key. The outputs will switch off. Repeat for other output types as required. Press the ☒ key. 'Test PGM's' will be displayed. Press the ☒ key.

```
PGM Test  [0003]
Intruder Any
```
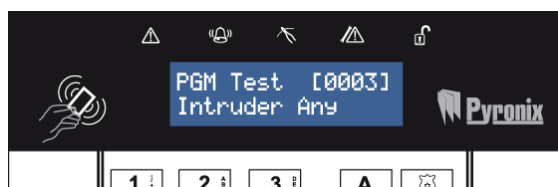
Test PHC Communications?

To test the PHC Communications press the ☑ key. This test is necessary to gain authorisation for connection to the network for SMS communication.

'Press Y if using PABX or N if not' will be displayed. Press the ☑ key if you are using a PABX system or the ☒ key if not.

```
Test PHC
Communications?
```
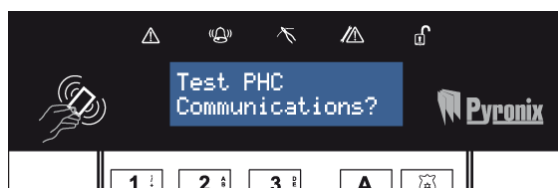
Press the ☒ key once it has completed. 'Test PHC Communications' will be displayed, press the ☒ key. You will be returned to the Engineer Menu.

If the test has failed please see page 65.

```
Test sent to PHC
Test Complete
```
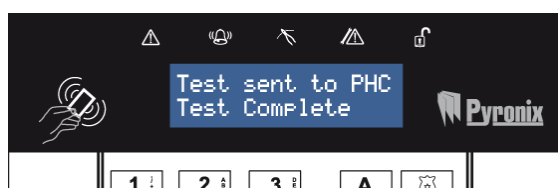
5.21 Diagnostics

The diagnostics on the PCX system allows you to view all parts of the system, including input resistances, power supplies and current.

The diagnostic resolution is:

- ➢ *Voltage*: 0.1V
- ➢ *Current*: 0.01A

The diagnostics that can be viewed are:
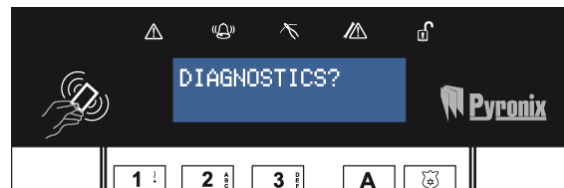
- ➢ **System voltage and current** at the control panel and at each individual power supply.
- ➢ **System voltage** at each keypad / tag reader.
- ➢ **Battery condition and charge current** at control panel or any remote power supply.
- ➢ **Display inputs** – current state of all inputs connected to a single system component, displayed in real time. In the "View Inputs" function
- ➢ **Calibration** – permits calibration if control panel PSU voltage, using a calibrated meter.

Visual Keypad Programming Procedure DIAGNOSTICS	
Diagnostics Using the ☐B☐ and ☐X☐ keys, scroll to **'DIAGNOSTICS'** Press the ☐✓☐ key	
To view the diagnostics of the power supplies press the ☐✓☐ key	
The Endstation PSU statistics will be displayed. Press the ☐✓☐ key.	
Enter the address of the RIX you wish to view. Repeat for each RIX. Press the ☐✓☐ key. Repeat for the ROXs, Keypads and Readers you have on the system. Press the ☐✓☐ key.	
To view the input diagnostics, press the ☐✓☐ key. 'Endstation Inputs' will be displayed. To view the Endstation inputs only, press the ☐✓☐ key.	
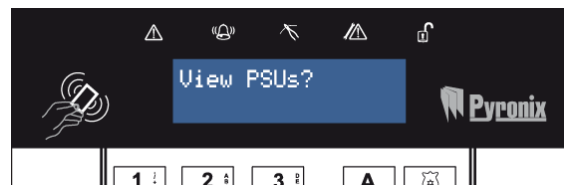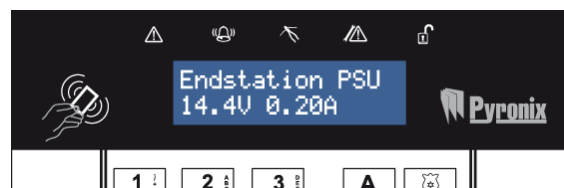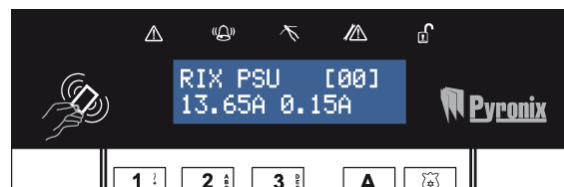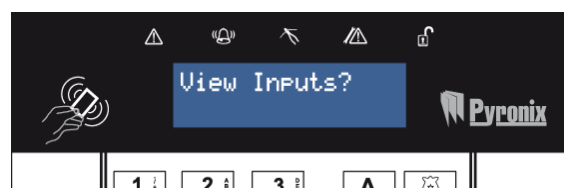
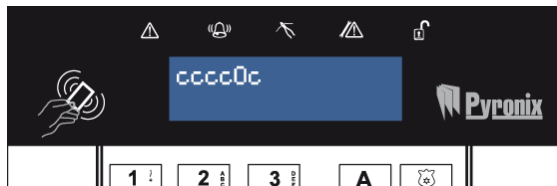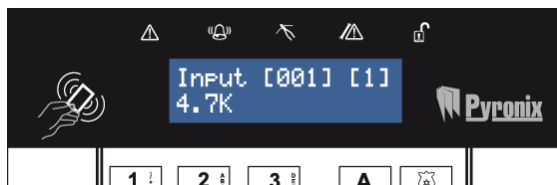|	
The status of the inputs will be shown. **C** = Closed. **O** = Open. **F** = Fault (Tamper) Press the ☑ key.	⚠ 📢 ⚡ ⚠ 🔓 ccccOc
The circuit resistance will be shown on any on the inputs you choose (enter the input number). **OC**: Open Circuit, **CC**: Closed Circuit **DF**: Detector Fault, **DM**: Detector Masked Press the ✗ key.	⚠ 📢 ⚡ ⚠ 🔓 Input [001] [1] 4.7K
Enter a RIX address and repeat the above for the RIX inputs. Press the ✗ key. Repeat for the keypad and reader inputs. Press the ✗ key. 'View Inputs' will be displayed, press the ✗ key.	⚠ 📢 ⚡ ⚠ 🔓 RIX Inputs?
If you would like to calibrate the PSU voltage of the PCX system, Press the ☑ key and enter 2 0 0 0. Place a calibrated volt meter across the battery connectors (with the battery disconnected) or across the auxiliary terminals and use the B and D until you reach the desired voltage (13.7V is the recommended value). Press the ☑ key. You will be returned to the Engineer Menu.	⚠ 📢 ⚡ ⚠ 🔓 Calibration? [****]
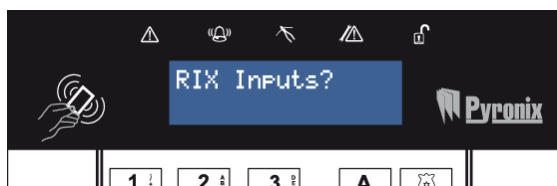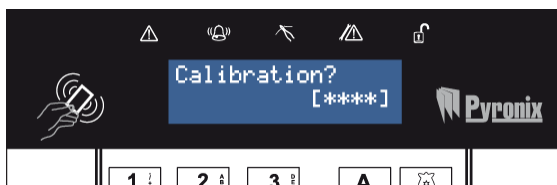
5.22 Set Up Downloading

The PCX system has uploading and downloading capability. The PCX UDL Software allows you to monitor the status of each input, alter programming, and review the logs.

There are two ways that the panel communicates with the PC, one is remotely; via the telephone line (thus you will require the digi modem card (PCX-DIGI+ARM) and the other is directly; by using an RS232 lead (PCX-RS232L) which connects into the PCX 256 expander card and your PC.

5.22.1 Download By

Select either RS232 (direct connection) or Modem (remote dial in connection). *The default is None.*

5.22.2 Security Mode

This function allows you to choose a range of dialling modes that can be used:

➢ **Auto Answer:** permits the PC to dial into the panel. *(Default)*
➢ **Dial Back:** permits the PC to dial the panel, which hangs up the call and dials the PC back to establish communication.
➢ **Panel Dials:** does not allow the PC to dial into the panel at all.

All modes allow the panel to dial the PC without restriction. At any time, the panel can be forced to dial the PC by entering the Manager menu and selecting the Dial Out Menu. Please see page 64.

5.22.3 Telephone Line

Dedication Line: When the PC dials the panel, it will respond immediately. *(Default)*

Shared Line: When the PC dials the panel, it will hang up after the second ring, and dial again. The first call primes the panel, which will then answer the second call.
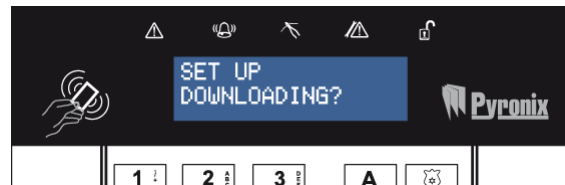
5.22.4 ARM / Modem Telephone Number

To be used in conjunction with the **'DIAL OUT MENU'** function (see page: 64), these are programmed for the appropriate PC. For example, the line the PCX is connected to might have "bar incoming calls" therefore you can have the PCX dialling a PC, you will just need to enter a 'Modem Telephone Number', i.e. the number that the PC's modem is connected to, and then exit engineers (to save all the data) and go to dial out menu and select the operation. The arm telephone number is used to send information to the PC software for monitoring purposes.

Visual Keypad Programming Procedure
SET UP DOWNLOADING

Set Up Downloading Using the B and X keys, scroll to **'SET UP DOWNLOADING'.** Press the ✓ key	SET UP DOWNLOADING?
Download By Enter 0 : for **None** *(Default)* Enter 1 : for **Modem.** Enter 2 : for **RS232** Press the ✓ key.	Download by Modem [1]
Security Mode Enter 0 : for **Auto Answer** *(Default)* Enter 1 : for **Panel Dials** Enter 2 : for **Dial Back.** Press the ✓ key.	Security Mode Dial Back [2]
Telephone Line Enter 0 : for **Dedicated** *(Default)* Enter 1 : for **Shared.** Press the ✓ key.	Telephone Line Shared [1]
Number of Rings To Prime *Only available if 'Modem' has been selected.* Enter the number of rings needed to prime the panel to answer the next call (1-15). Press the ✓ key. *(Default is 03)* **Modem Speed** will be displayed. DO NOT ALTER THIS SETTING	Number of rings to prime [3]
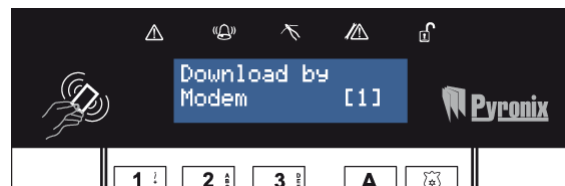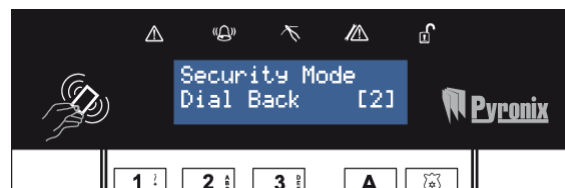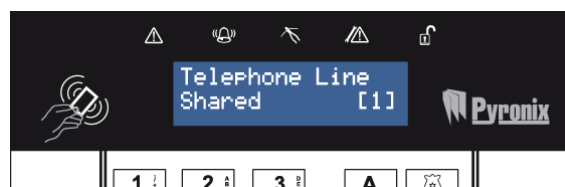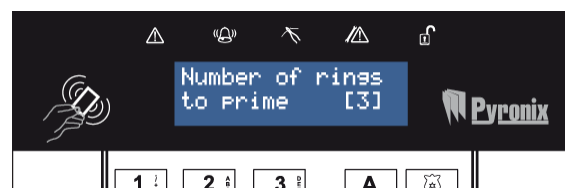
Enter the Arm telephone number. Press the ☑ key.	⚠ 🔔 ↘ ⚠ 🔓 **ARM Tel No.** Pyronix 1 2 3 A 🛡
### *Program PCs* Select the PC that will be used for programming. Press the ☑ key. 'Modem Tel No' will be displayed, Enter the telephone number of the PC that the panel will communicate with.	⚠ 🔔 ↘ ⚠ 🔓 **Program PCs** **[1]** Pyronix 1 2 3 A 🛡
### *Signal Alarms* Enter ☐0☐: for **No** *(Default)* Enter ☐1☐: for **Yes** Press the ☑ key. Repeat for Signal Faults, Signal Open/Close and Signal Access C. *(All defaults are NO)* Press the ☑ key. 'Program PCs' will be displayed. Repeat for further PCs or press the ☐✗☐ key.	⚠ 🔔 ↘ ⚠ 🔓 **Signal Alarms** **No [0]** Pyronix 1 2 3 A 🛡
If required, enter a text password (this protects the system from anyone dialling in – the PC software must have this password as well) (See page 10). Press the ☑ key.	⚠ 🔔 ↘ ⚠ 🔓 **Password** **–** Pyronix 1 2 3 A 🛡
Select the number of redials which the panel will attempt (0-15). Press the ☑ key. Press the ☐✗☐ key. You will be returned to the Engineer Menu.	⚠ 🔔 ↘ ⚠ 🔓 **Redials** **[03]** Pyronix 1 2 3 A 🛡
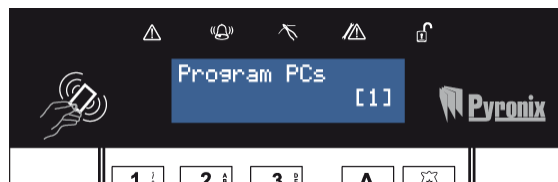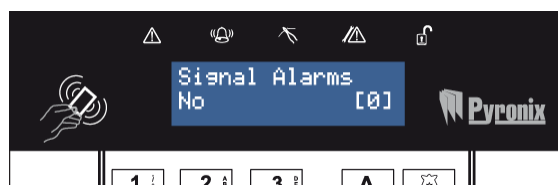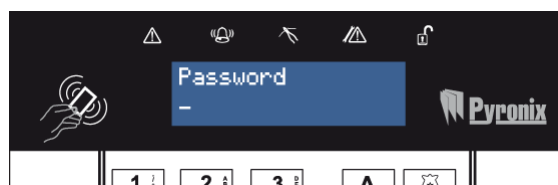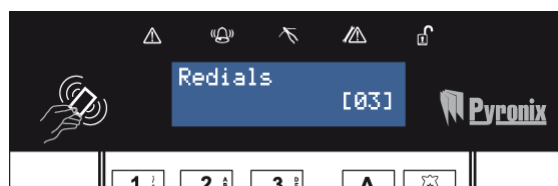
5.23 Programme DIGI / SMS?

The PCX system can be used to dial to an Alarm Receiving Centre or send SMS texts to a mobile phone.

5.23.1 Programming Fast Format

The Fast Format type 4.8.1 is selected as default for the digi. Up to four numbers can be programmed, each with individual account numbers, channel information and back up telephone number option. The channels can be individually programmed in the "Program Digi Channels" section. Each channel uses a programmable output number. The default values are described on below:

DIGI CHANNELS	PGMs	DIGI CHANNELS	PGMs
Digi Channel 1	Fire (0001)	Digi Channel 6	Confirmed Any (0006)
Digi Channel 2	HU Device Any (0009)	Digi Channel 7	Omit Rearm Any (0017)
Digi Channel 3	Unconfirmed Any (0018)	Digi Channel 8	AC Fail (0052)
Digi Channel 4	Final Arm Any (0022)	Digi Channel 9	Global Fault 2 (0056)
Digi Channel 5	Tamper Any (0007)	Digi Channel 10	Test ATS (0064)

The communicator "status channel" (channel 0) is used for low voltage and test calls.

5.23.2 Adding a Pause

For a 2 second pause after a telephone number digit, press the [A] key until you reach the 'comma' symbol (','). This is usually used if a '9' is needed before the telephone number.

Visual Keypad Programming Procedure

PROGRAMME DIGI/SMS

Fast Format 8 Channel

Programme Digi / SMS

Using the [B] and [x] keys, scroll to **'PROGRAMME DIGI/SMS'** Press the [✓] key

To 'Program Digi / SMS Calls' will be displayed, to program in an ARC number, press the [✓] key
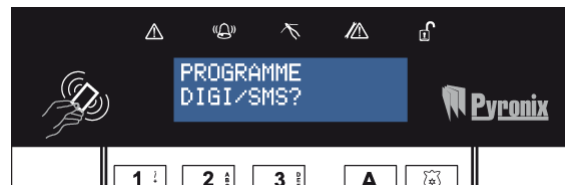
---

Disable Digi/SMS

Enter [0]: for **No** (Enables the Digi Modem)

Enter [1]: for **Yes** *(Default)* Press the [✓] key.
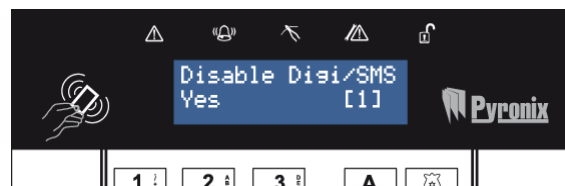
Use the numeric keys to select the ARC details to program. Press the [✓] key

Active

Enter [0]: for **No** *(Default)*

Enter [1]: for **Yes** (Enables the ARC Details)

Press the [✓] key

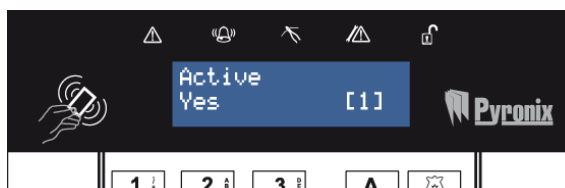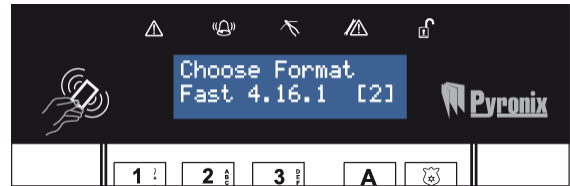|	
Choose Format Fast 4.8.1 will already be selected *(Default)*. If you wish to change this use the ⌐D⌐ key to scroll through the different formats. Press the ☑ key	Choose Format Fast 4.16.1 [2]
Enter the 1st telephone number. Press the ☑ key. Enter the 2nd telephone number. Press the ☑ key. **_TO ADD A PAUSE, PRESS THE ⌐A⌐ KEY UNTIL A COMMA IS DISPLAYED._**	First No.
Stop on Success Enter ⌐0⌐: for **No** Enter ⌐1⌐: for **Yes** *(Default)* Press the ☑ key	Stop on Success Yes [1]
ARC Account Use the numeric keys to program the account number of the central station (this will be given to you by your ARC). Press the ☑ key.	ARC Account -
Select the DIGI channels you require to be sent to the ARC. Please see the table on page 58 for the default channels. Press the ☑ key. Repeat for the restores you require to be sent to the ARC. Press the ☑ key.	CHANNELS 1-16 ....
Select the number of redials you require (0-15). Press the ☑ key. *(03 is the default)* Repeat for the Time Out (The time that the panel will wait for a reply *(15 seconds the default)*. Press the ☑ key.	Redials [03]
Low Battery Report Enter ⌐0⌐: for **No** *(Default)* Enter ⌐1⌐: for **Yes** Press the ☑ key	Low Batt Report No [0]
Test Calls Enter ⌐0⌐: for **No** *(Default)* Enter ⌐1⌐: for **Timed.** (If Timed is chosen you will need to enter the hours and minutes once you have pressed the ☑ key). Press the	Test Calls No [0]
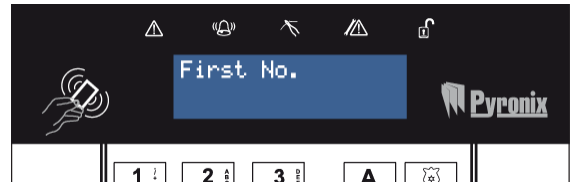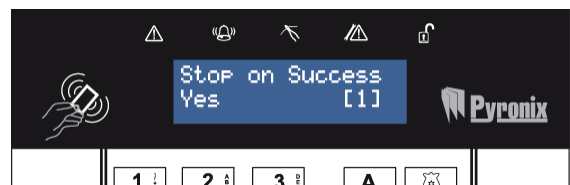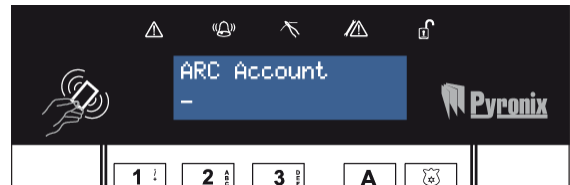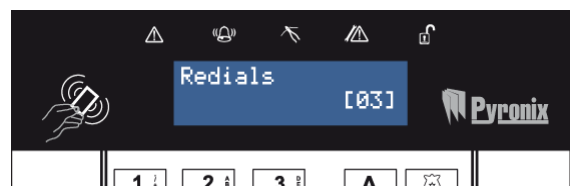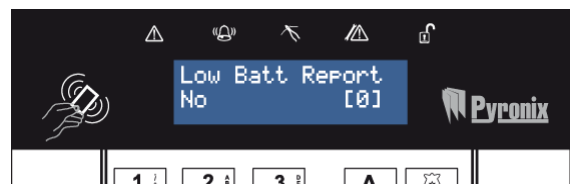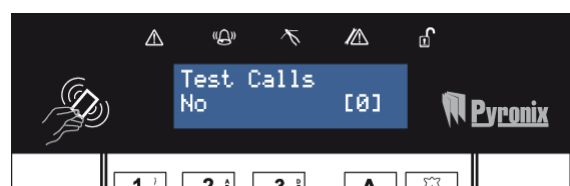
key. ARC Details will be displayed. Repeat the above for any other ARC stations you are using. Press the ✗ key. 'Program Digi/SMS Calls?' will be displayed, press the ✗ key.

Program Digi Channels

Press the ✓ key to check that the Digi Channels are what the ARC are looking for.
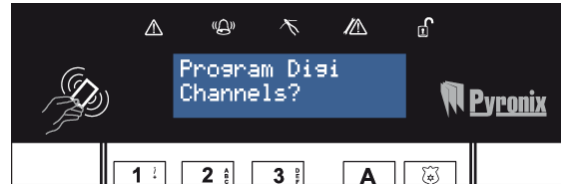
The first Digi Channel will be shown, once you have checked this is correct, press the ✓ key to move to the next.

To change this channel please see page 38 for the output types. All default values are shown on page 58. Once you have completed all the Digi Channels, 'Program Digi Channels will be displayed'. Press the ✗ key.

'Program SMS Details' will be displayed and Press the ✗ key.

3 Way Calling

Enter 0 : for **No** *(Default)*

Enter 1 : for **Yes**

Press the ✓ key. You will be returned to the Engineer Menu.
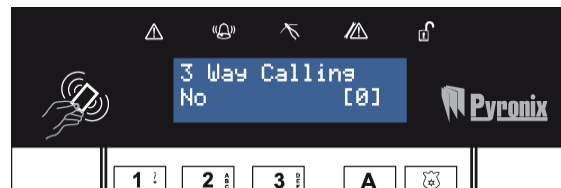
5.23.3 Programming Contact ID, SIA and SMS

The Contact ID, SIA and SMS signalling protocols can also be used. However the programming differs from Fast Format, here you have to select fixed content types (as opposed to programmable outputs) you would like to be sent to the ARC. The table below shows all the content types.

Content Types		
01	Arm	All arm events (by area/level & user name)
02	Disarm	All disarm events (by area/level & user name)
03	Special Disarm	Disarm events initiated by codes 15 to 20 only
04	Arm Fail	Attempt to arm the system failed
05	Alarm	All alarm events (by partition, level and type) inc. code guess (excludes tampers and emergency input types)
06	First alarm	First to alarm event (for each input) only
07	Alarm Silenced	Any alarm/fault silenced (by partition)
08	Confirmed	Sequentially confirmed alarm
09	LoTechFault	Telecom Line restore (STU/ATE or DigiModem)
10	HiTechFault	Low volts, Battery fault/OK, Fuse failure, RS-485 or Device Failure
11	Tech Info	System restart, Over current, Logs cleared
12	Manager Info	Code changed / deleted
13	Engineer Info	Engineer accessing system, and leaving
14	AccessC Alarm	Access Control door forced or left open
15	AccessC Info	Access Control tag at Reader
16	AccessC Ref	Access refused (invalid code)

17	SL SwitchOn	*Switcher input active	
18	SL SwitchOff	*Switcher input restored	* - Signalled ONLY for inputs with 'Special Logged' attribute.
19	SL OtherOn	*Other input active	
20	SL OtherOff	*Other input restored	
21	Sub-partitions Set	Arming events for sub-partitions	
22	Sub-partitions Unset	Disarming events for sub-partitions	
23	Sub-partitions Alarm	Alarm event in a sub-partition	
24	Input Omitted	Input omitted at rearm.	
25	Input Restore	Restore of type 05	
26	Test Call	Do not Use	
27	Mains fail	Mains fail/restore	
28	Emergency input	Fire, Gas, HU, 2-key HU, Duress Code used	
29	Emergency Restore	Restore of Fire, Gas, HU.	
30	Tamper input	Tamper, Day alarm, and Trouble input types. Tamper on input, case tamper and SAB tamper.	
31	First Tamper input	First to alarm of tamper input.	
32	Tamp Input Restore	Restore of a tamper.	

5.23.4 PABX Systems (Only relevant to SMS)

Please note for PABX telephone systems (where a "9" is needed in order to dial an outside line), you must put "NN" before the account number in the "account reference" part of the programming (see below). If you haven't been given an account number then the account reference "NN1111" would be OK to use. This needs to be entered on the keypad.

Pyronix

Visual Keypad Programming Procedure
PROGRAMME DIGI/SMS
Contact ID / SIA / SMS Message

Programme Digi / SMS

Using the [B] and [X] keys, scroll to
'PROGRAMME DIGI/SMS' Press the [✓] key

To 'Program Digi / SMS Calls' will be displayed
to program in a mobile number, press the
[✓] key

PROGRAMME
DIGI/SMS?

Disable Digi/SMS

Enter [0]: for **No** (Enables the Digi Modem)

Enter [1]: for **Yes** *(Default)*

Press the [✓] key

Use the numeric keys to select the ARC details
to program (up to 4 can be selected). Press the
[✓] key
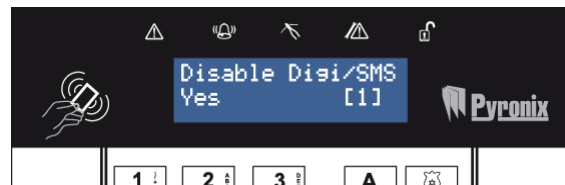
Disable Digi/SMS
Yes   [1]

Active

Enter [0]: for **No** *(Default)*

Enter [1]: for **Yes** (Enables the ARC Details)

Press the [✓] key

Active
Yes   [1]
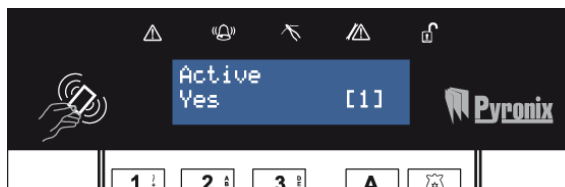
Choose Format

Select the Format you wish to use (use the [D]
key to select this)

4 = RS232 TX (for future use)
5 = SIA Level 1
6 = SIA 3
7 = Contact iD
8 = SMS Message
Enter number 7 to choose 'SMS Message'.

Press the [✓] key

Choose Format[7]
SMS Message
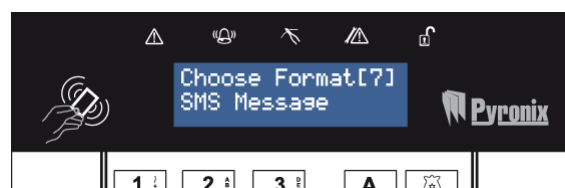
Contact ID and SIA

Enter the 1st telephone number.

Press the [✓] key.

Enter the 2nd telephone number.

Press the [✓] key.

First No.
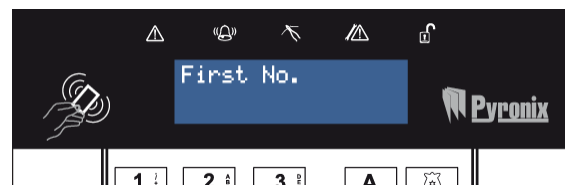
SMS

Enter the mobile number. Press the ☑ key.

Select the partitions that you wish to be used.

NOTE: The primary partitions are A, B, C & D.

Press the ☑ key.

Stop on Success (For Content ID and SIA)

Enter ⌐0⌐: for **No**. Enter ⌐1⌐: for **Yes**

Press the ☑ key. Repeat for Partition Accounts if applicable, press the ☑ key

ARC Account (For Content ID and SIA)

Use the numeric keys to program the account number of the central station (this will be given to you by your ARC). Press the ☑ key.

Note: If partition accounts have been enabled in the previous option then you will have to assign a different account code for each partition.

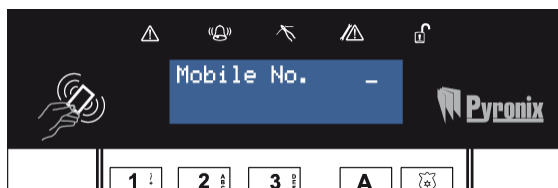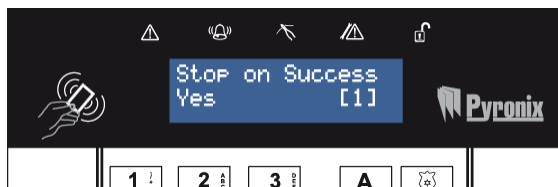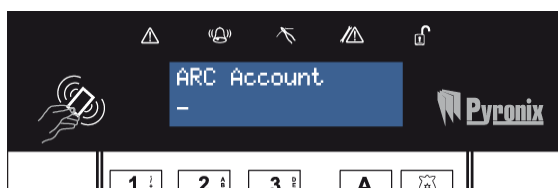Using the numeric keys select the content types you would like to use. Please see page: 60 for the different types. Press the ☑ key.

Repeat for contents 17-32. Press the ☑ key. Select the number of redials you require (0-15). Press the ☑ key. Repeat for the Time Out (The time that the panel will wait for a reply). Press the ☑ key.

Test Calls

Enter ⌐0⌐: for **No**. *(Default)* Enter ⌐1⌐: for **Timed** (If Timed is chosen you will need to enter the hours and minutes – press the ☑ key).

Press the ☑ key. ARC Details will be displayed. Repeat the above for any other ARC stations you are using. Press the ☒ key. 'Program Digi/SMS Calls?' will be displayed, press the ☒ key. 'Program Digi Channels' will be displayed and Press the ☒ key. 'Program SMS Details' will be displayed and Press the ☑ key.
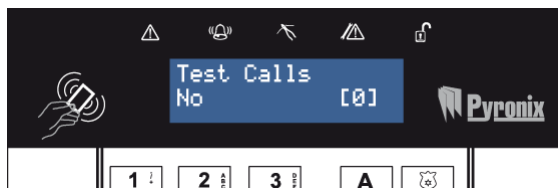
Account Ref

Enter an account reference if required (and the 'NN' for PABX Systems). Press the ☑ key.

Manufacturer Access will be displayed

If you require access to this please contact Customer Support.
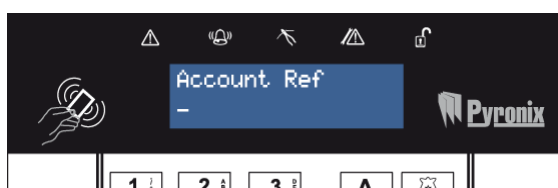
3 Way Calling

Enter ⬚ 0 : for **No**

Enter ⬚ 1 : for **Yes**

Press the ☑ key. You will be returned to the
Engineer Menu.
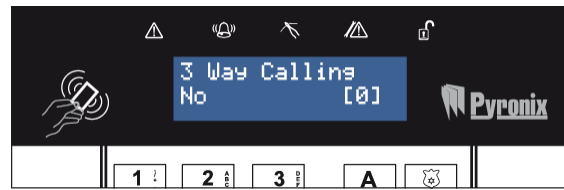
5.24 Dial Out Menu

The Dial Out Menu can be used to dial to a remote PC (rather than the PC dialling the control
panel). The modem telephone numbers can be programmed in 'Set Up Downloading' – see page:
56. The following actions can be performed: Connect to PC, Test Call, Arm Service (You must use
the ARM software for this), Data from PC, Data to PC, Diagnostics and Commissions.

Visual Keypad Programming Procedure
DIAL OUT MENU

Dial Out Menu

Using the ⬚ B and ⬚ X keys, scroll to **'DIAL OUT
MENU'.** Press the ☑ key.
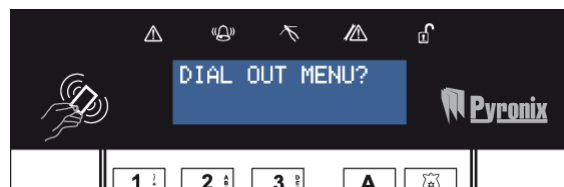
Enter the PC number you wish to dial. Press ☑

Select Operation

Enter ⬚ 0 : for **Connect to PC**

Enter ⬚ 1 : for **Test Call**

Enter ⬚ 2 : for **Arm Service**

Enter ⬚ 3 : for **Data from PC**

Enter ⬚ 4 : for **Data to PC**

Enter ⬚ 5 : for **Diagnostics**

Enter ⬚ 6 : for **Commissions**

Press the ☑ key

*If the call fails, check your telephone connections
and modem numbers.*

APPENDIX A: FAULTS & DEVICE FAIL

Device Fail

If a device on the PCX system is not installed correctly or has lost its communication with the panel, "DEVICE FAIL" will be shown on the LCD keypad followed by a 3-figure device code. The first digit identifies each type of device:

```
DEVICE FAIL 100 = End Station
DEVICE FAIL 200 = Keypad
DEVICE FAIL 300 = Tag Reader / Door Station / RIX2
DEVICE FAIL 400 = Remote Input Expander
DEVICE FAIL 500 = Remote Output Expander
```

The digits after refer to that devices address, for example:
DEVICE FAIL 401 = means that the Remote Input Expander addressed as "01" has a problem.

Fault Indications

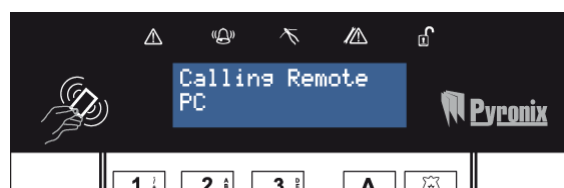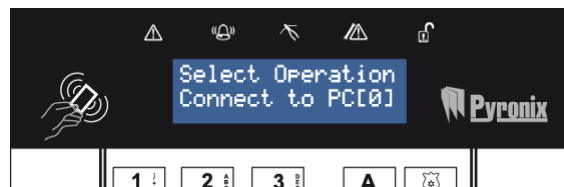| COMMUNICATION FAULTS		
Fault	**Description**	**Solution**
MODEM FAULT	End Station unable to communicate with Digi Modem	If modem not present, ensure that "Disable Digi" option is set to 'YES' and "DOWNLOAD MODE" is set to 'NONE' or 'RS232'. If present, but not detected, check Digi Modem is inserted correctly and complete initialisation by pressing End Station 'RESET' button for 2 seconds.
DIGI FAIL COMM	Call to ARC from Digi Modem DigiModem has failed. _**Note:** This is a communication problem, which is rarely caused by an equipment fault._	Check ALL call details are programmed correctly. Ensure signalling format is correctly set for ARC receiver. If only one call number programmed, ensure "STOP ON SUCCESS" = 'YES' and "TRY SAME" is selected – NOT "TRY NEXT".
PHC TEST FAIL	Unable to communicate with Pyronix Host Computer. _**Note:** This would also result if the telephone line had premium rate calls blocked._	Ensure Digi is enabled, and at least one SMS call is correctly programmed. Check that ordinary phone on same line connects to PHC and modem tones heard - if not, problem is PSTN – NOT equipment. De-program SMS content types for each call, exit Engineer menu, press RESTART button, and retry PHC test from Manager menu.
LINE FAULT 100	PSTN Line Fault signalled by Digi Modem.	Only operative if "DOWNLOAD BY MODEM" selected OR "DISABLE DIGI/SMS" is set to 'NO' _**Note:** 'Line Fault' timer operative._
ATE LINE FAULT	PSTN Line Fault signalled by device using ATE pins on End Station.	Only operative if Site Option "DIGIREPLY" is set to 'STU' or 'Digicom.' Check voltage on input pin– if +5/12 volts, device connected is showing fault. _**Note:** 'Line Fault' timer operative_
ATE FAIL COMM	Call to ARC from device using End Station ATE pins has failed. _**Note: This is a communication problem, which is rarely caused by an equipment fault.**_	Only operative if Site Option "DIGIREPLY" is set to 'Digicom.' Check voltage on input – if +5/12 volts, device connected is showing fault.
ATSF 1 Path/Both 100	Signalling equipment has failed to signal on one of its paths or both of its path.	The control panel will automatically signal a test on ATE output 10 – if the signalling equipment has still failed the error message will be displayed again. If not everything will return to normal.

RS-485 BUS PROBLEMS

Fault	Description	Solution
DEVICE FAIL xxx	Device on RS-485 communications bus failing to communicate	Identify device from numeric code. Check device addressed correctly to match programming. Check connections at device, and cabling to it. If above correct, re-boot device, followed by re-boot of End Station.
485/COMMS LOST	Displayed on keypad that has not yet established communications with End Station	Part of routine initialisation procedure. If persists, check display at other keypad(s) to confirm if device failure at that keypad or complete system RS-485 failure (temporarily attach additional keypad direct to End Station if necessary).
Keypad display is BLANK	Keypad address does not match any keypad enabled	Check keypad address, noting that a keypad at address 00 must be present to program system. Also check "Assigning Keypads" menu in Engineer mode set up correctly.
KEYS LOCKED OUT	More than one device connected at the same address	Correct addressing so that no overlaps. Then power system down and up again to correctly reinitialise.

DETECTION FAULTS

Fault	Description	Solution
SAB TAMPER	Tamper fault detected on connection from SAB	Terminal BT should be at or near 0v. If not, is SAB Tamper switch closed? Check Fuse F6 intact, and connections to SAB.
CASE TAMPER	Case tamper switch open	Secure switch closed
SIREN x TAMPER	Monitors for German specification fault conditions on relay plug-on	PCX- and above. For UK use, Site Option "DIGI-REPLY" should NOT be set to 'Relay monitor'.
STROBE TAMPER		
Code Guessing	Up to 30 Invalid key presses have been entered or 7 invalid tags have been presented.	Press the X key to clear.

POWER SUPPLY PROBLEMS

Fault	Description	Solution
BATTERY FAULT xxx	Battery Fuse (F4) failed, OR Battery not present, OR Battery volts low	***Note: This indication should be expected during recharge after a mains failure.***
BAT LOAD FAIL	Battery Load Test has failed	Only displays if option selected. Battery uncharged or capacity below specification may need replacing.
BATTERY CRITICAL	Battery being disconnected	Protects battery from deep discharge damage during extended mains failure. ***Note: System is now powered down!***

MAINS FAIL xxx	Mains supply failed	System detects mains frequency out of specification, as well as voltage. **Note: 'AC FAIL' timer operative**
FUSE x FAULT	Fuse identified failed, OR Output protected by fuse drawing excessive current	Fuse 1 = PGMs Fuse 2 = BELL Fuse 3 = AUX Fuse 4 = BATTERY Fuse 5 = BUS
LOW VOLTS xxx	Power supply volts low	Battery volts below normal 'battery fault' level during mains failure

ENGINEER INDICATIONS		
Fault	**Description**	**Solution**
Engineer Access Denied	Access to Engineer menu NOT possible, as system is not fully disarmed.	Ensure that ALL partitions are disarmed, using a suitable user codes / tags at appropriate keypads / readers.
Check Failed Input xxx	Input in fault on attempting to exit Engineer mode.	Applies to 24-hour tamper, or other input types that would generate an alarm condition if the system were returned to disarmed mode. Also applies to tamper fault on other input types. Check for fault on input, or omit in programming.
Error input part'ns not accessible	A input has been programmed to a partition for which no arming point is valid to disarm.	It would therefore be impossible to fully disarm the system after a tamper alarm on that input. Programming must be adjusted before exiting Engineer mode.
Error some part'ns cannot be disarmed	Arming points have been programmed such that it is possible to arm a partition, but not disarm it.	Programming must be adjusted before exiting Engineer mode.

CHAPTER 6: CONTACT INFORMATION

Address

Pyronix Ltd.
Pyronix House
Braithwell Way
Hellaby, Rotherham
S66 8QY, UK

Help Line

Customer Support line (UK only): 0845 6434 999 (local rate) Or telephone: 01709 535225

Opening Times

Opening hours: 7:00 AM – 7:30 PM
Monday to Friday

Email:

customer.support@pyronix.com

Websites:

www.pyronix.com
www.dd243.co.uk

Pyronix Ltd. reserves the right to adjust specifications of this system, at any time and without notice, in the interests of product improvement. Pyronix Ltd. is an independent British company specialising in the design and manufacture of high-quality security control equipment.

QUICK FIND GUIDE

COMMUNICATION

Function	Description	Pages
PROGRAM DIGI/SMS?	Programming of telephone numbers, digi channels and SMS details.	Page: 58
ENGINEER RESTORE OPTIONS?	Anti code and Engineer resets after alarms	Page: 48
SET UP DOWNLOADING?	Makes the system available for upload/download via a modem or RS232 lead.	Page: 55
DIAL OUT MENU?	Makes the system dial to a PC.	Page: 64
ALARM RESPONSE?	Disable Confirm on Entry, Inputs to Confirm	Page: 36
SITE OPTIONS?	ATE Inputs	Page: 45

ENGINNER TEST FUNCTIONS

Function	Description	Pages
ENGINEER TESTS?	Walk Test, PGM test, PHC Communications Test	Page: 50
DIAGNOSTICS?	Readings of the PSU, Input Resistances, etc.	Page: 54

ADDRESSING DEVICES

Function	Description	Pages
ASSIGN KEYPADS/READERS?	Address Keypads, Readers, Access Control	Page: 23
INSTALL RIX?	Address Remote Input Expanders	Page: 16
CHANGE OUTPUTS?	Address Remote Output Expanders	Page: 38

PROGRAMMING OPTIONS

Function	Description	Pages
CHANGE INPUTS?	Programs input types, attributes etc	Page: 16
CHANGE OUTPUTS?	Programs output types	Page: 38
CHANGE TIMERS?	Programs bell time, confirm time, entry/exit time, bell delay etc.	Page: 30
CHANGE CODES?	Programs Duress, Manager & Engineer codes. For user please see the user manual RINS 867.	Page: 32

TABLES

Function	Description	Pages
FAULTS / DEVICE FAIL	Fault descriptions	Page: 65
INPUT TYPES	Table of all the input types available	Page: 16
OUTPUT TYPES	Table of all the output types available	Page: 38